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EXPLANATORY.

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In the Subject Index of each Division authors are quoted by name only. The full references will be found in the Title Section of the Division.

The Literature indexed is mainly that of 1915 but includes entries for earlier years that have been received too late for inclusion in previous volumes.

On account of the present international situation, the Royal Society of London found itself unable to undertake at present any financial responsibility for any volumes of the International Catalogue subsequent to those of the Fourteenth Annual Issue.

Under these circumstances the Zoological Society of London arranged to undertake the issue of the present volume, which is the fifty-second of the Zoological Record, and would have been N. Zoology of the Fifteenth Annual Issue of the International Catalogue. Its preparation has been conducted as closely as possible on the model of the previous volumes prepared jointly by the International Catalogue and the Zoological Society.

It can now be purchased from the Zoological Society of London at the price of £2, either in the binding of the Zoological Record or in series with the International Catalogue.

Volume 53, dealing with the Literature of 1916, is in preparation.

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ARRANGED BY

D. SHARP

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R. W. HAROLD ROW.

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List of Foraminifera found at Blacksod Bay, Ireland; FARRAN Dublin Fish Ireland Sci. Investig. **1914** No. 3 pp. 27–28.

List of Foraminifera from the Kerimba Archipelago (Portuguese East Africa); HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** pp. 543–794.

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†List of Foraminifera from the Palaeogene of the Veneto; FABIANI Padova Mem. Ist. Geol. Univ. Padova **3** pp. 215–223.

†List of Foraminifera from the Miocene at Valcieca (Monte di Spoleto); MARTINOTTI Roma Bol. Soc. geol. ital. **34** pp. 227–250.

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†*Clypeorbis*, **subgen. n.** (*Orbitoides*), type *O. manmillata*, from Campanien; DOUVILLÉ C.R. Acad. sci. Paris **161** p. 669.

Cornuspira charoides **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 593.

Cymbalopora milletti **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c. p. 689.—*C. poeyi* var. *bradyi*, var. n., off Hawaii Is.; CUSHMAN Washington D.C. Smithsonian Inst. Nation Mus. Bul. **71** p. 25.

†*Doliolina lepida* var. *lettensis* var. n. [? Permian,] I. of Letti; SCHUBERT Jaarb. Mynw. **43** p. 175.

Discorbina reniformis **sp. n.**, p. 696, and *valvulata* var. *granulosa* var. n. p. 695, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20**.

Discorbis subfilosa, North Pacific, *pulvinulinoides*, off Japan, **spp. n.**, p. 23, and *globularis* var. *bradyi*, var. n., off Japan, p. 12; CUSHMAN Washington D.C. Smithsonian Inst. Nation. Mus. Bul. **71**.

†*Endothyra discoidea*, **sp. n.**, Batesville Sandstone, (Early Carboniferous), Arkansas; GIRTY Washington D.C. Bul. U.S. Geol. Survey **593** p. 27.

Fischerina helix **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 591.

Fusulina, U.S. spp., nomenclature; GIRTY J. Geol. Chicago **22** pp. 237–242.

† *Gaudryina carinata*, *laevigata*, **spp. n.**, Cretaceous, Germany; FRANKE A. Berlin Zs. D. Geol. Ges. **66** p. 431.

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†*Hyperamnia minutissima*, *rectangula*, **spp. n.**, Upper Silurian, Gothland; SMITH Ann. Mag. Nat. Hist. (ser. 8) **15** p. 304.

Iridia diaphana, H.-A. & E., question of identity with *Squammulina varians* Carter; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 608.

†*Isolepidina*, **subgen. n.**, (*Lepidocyclina*), type *L. mantelli*, from Eocene; DOUVILLÉ C. R. Acad. sci. Paris **161** p. 724.

Lagena orbignyana var. *kerimbatica* var. n., Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 667.

†*Lagena cylindrica*, *gottlandica*, p. 306, *acutangula*, *gutta*, *storavedensis*, *visbeyensis*, p. 307, **spp. n.**, Upper

Silurian, Gothland; SMITH Ann. Mag. Nat. Hist. (ser. 8) **15**.

Massilina secans var. *rugosa* var. n., Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 583.

Miliolina exsculpta, p. 567, *kerimbatica*, p. 574, **spp. n.**, and *circularis* var. *cribrostoma* var. n., p. 558, *secans* var. *reticulata*, var. n., p. 582, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c.

Mimosina rimosa, p. 560, *echinata*, p. 651, **spp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c.

†*Nodosaria siluriana*, **sp. n.**, Upper Silurian, Gothland; SMITH Ann. Mag. Nat. Hist. (ser. 8) **15** p. 307.

Nubecularia tubulosa **sp. n.**, p. 548, and *lucifuga*, var. *decorata*, var. nov., p. 549, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20**.

†*Orbitella* **subgen. n.**, (*Orbitoides*), type *O. media*, from Campanien; DOUVILLÉ C. R. Acad. sci. Paris **161** p. 666.

†*Orbitoides*, revised; DOUVILLÉ T.c. pp. 664–670.—*O.* spp., Eocene, Oligocene and Miocene of Trinidad; DOUVILLÉ T.c. p. 87.

†*Orthophragmina dispansa* var. *minor*, var. nov. Eocene, Borneo; RUTTEN Leiden Samml. geol. Reichsmus. **10** p. 8.

Polystomella milletti **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 735.

Peneroplis, discussed; HERON-ALLEN & EARLAND T.c. p. 594.

†*Pliolepidina* **subgen. n.** (*Lepidocyclina*), for a form (unnamed) from the Stampien of Trinidad; DOUVILLÉ C. R. Acad. sci. Paris **161** p. 727.

Rotalia erinacea, p. 720, *murrayi*, p. 721, **spp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20**.

Sphaeroidina corticata **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c. p. 681.

Spirillina operculoides, near Hawaii Is., p. 7, *guttata*, off Japan, p. 8, **spp. n.**, and *limbata* var. *papillosa* var. n., near Hawaii Is., p. 6; CUSHMAN Washington D.C. Smithsonian Inst. Nation. Mus, Bul. **71**.—*S. semidecorata* **sp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND Trans. Zool. Soc. London **20** p. 685.

Textularia foliacea **sp. n.**, p. 628, and *conica* var. *corrugata*, var. n., p. 629, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c.

Truncatulina tubulifera, p. 710, *glabra*, p. 711, **spp. n.**, Kerimba Archipelago; HERON-ALLEN & EARLAND T.c.

Virgulina schreibersiana var. *carinata*, var. n., Kerimba Archipelago; HERON-ALLEN & EARLAND T.c. p. 643.

†*Webbina gothemensis*, **sp. n.**, Upper Silurian, Gothland; SMITH Ann. Mag. Nat. Hist. (ser. 8) **15** p. 305.

(c) Heliozoa

List of Danish Heliozoa; ELLINGER Vidensk. Meddel. Naturk. Foren. Kjøbenhavn **66** pp. 208–209.

Actinophrys oculata, aus Schlammproben von Madagaskar; SONDHEIM Arch. Protistenkunde Jena **36** pp. 52–66.

(d) Radiolaria.

[Nothing.]

3. SPOROZOA.

(a) Gregarinidea.

Gregarinida, Phylogenie, Stellung im System (Russ.); MAVRODIADI Varšava Univ. izv. **1914** No. 8 pp. 1–164.

New Gregarines from North American *Diplopoda* and *Insecta*; WATSON J. Parasitol. Urbana Ill. **2** pp. 27–36.

Clepsidrina hylobii **sp. n.**, from *Hylobius abietis*; FUCHS Zool. Jahrb. Jena Abth. Syst. **38** p. 203.

Gregarina typographi, **sp. n.**, from *Ips typographicus*; FUCHS T.c. p. 160. —*G. barbara* p. 31, *fragilis* p. 32, both from gut of *Coccinella* sp., *katherina* from gut of *Coccinella novemnotata* p. 31, *globosa* from gut of *Coptotomus interrogatus* p. 31, *monarchia* p. 31, *intestinalis* p. 32, both from gut of *Pterostichus stygicus*, *nigra*, from gut of *Melanoplus femur-rubrum*, *M. differentialis*, and *Encoptolophus sordidus* p. 33, *stygia*, from gut of *Ceuthophilus*

stygicus p. 33, *galliveri*, from gut of *Gryllus abbreviatus* p. 33, *illinensis*, from gut of *Ischnoptera pennsylvanica* p. 34, *gracilis*, from larvae of *Elateridae*, p. 32, *tenebrionella*, from larvae of *Tenebrionidae*, p. 32, **spp. n.**; WATSON J. Parasitol. Urbana Ill. **2**.

Stenophora juli, Einwirkung von Cyankalium (Russ.); SOKOLOV Bull. labor. biol. **14** livr. 1 pp. 72–74.

Lankesteria culicis found in *Stegomyia fasciata* from West Africa; STEVENSON & WENYON J. Trop. Med. Hygiene **18** p. 196.

Leidyana, **gen. n.**, for *L. solitaria* **nom. n.**, for *Stenophora erratica*, Crawley, from *Gryllus pennsylvanicus*, North America; WATSON J. Parasitol. Urbana Ill. **2** p. 35.

Lithocystis foliacea, from *Echinocardium cordatum*, Naples, *microspora*, from *Spatangus purpureus*, English Channel, **spp. n.**; PIXELL-GOODRICH Quart. J. Microsc. Sci (n.s.) **61** p. 96.

Microtaeniella **gen. n.**, for *M. clymenellae* **sp. n.**, from the gut of *Clymenella torquata*; CALKINS Biol. Bull. Woods Hole Mass. **29** p. 46.

Porospora nephropis **sp. n.**, from *Nephrops norvegica*; LÉGER & DUBOSCQ Paris C. R. Soc. biol. **78** p. 368.

Prismatospora **gen. n.**, for *P. evansi* **sp. n.** Michigan, from *Odonata* nymphs; ELLIS Trans. Amer. Microsc. Soc. Decatur Ill. **33** p. 226.

Spirocystis nidula from *Lumbriculus variegatus*, structure and life-history described; LÉGER & DUBOSCQ Arch. Protistenkunde Jena **35** p. 199.

Spirosoma **gen. n.** for *S. caudatum* **sp. n.**, from *Fontaneria coarctata*; ISHII Annot. zool. Japan Tokyo **9** p. 7.

Steinina rotunda **sp. n.** from gut of *Amara angustata*, North America; WATSON J. Parasitol. Urbana Ill. **2** p. 32.

Stenophora diplocorpa, from intestine of *Euryurus erythropygus*, *impressa*, from intestine of *Parajulus impressus*, *lactaria* from intestine of *Callipus lactarius*, **spp. n.**; WATSON T.c. p. 29.

Stylocephalus giganteus, desiccation of cysts; ELLIS Science N.w York N Ser.) **40** pp. 174–176.

Urospora neopolitana from *Echinocardium cordatum*, Naples, *echinocardii*, from *Echinocardium* and *Spatangus*, Plymouth, **spp. n.**; PIXELL-GOODRICH Quart. J. Microsc. Sci. (n.s.) **61** p. 97.—*U. travisiae*, *ovalis*, Organisation, Entwicklung, Fortpflanzung, Parasitismus (Russ.); MAVRODIADI Varšava Univ izv. **1914** No. 8 pp. 1–164.

(b) Coccidiidea.

Adelea ovata, anatomy and life-history described in detail; SCHELLACK & REICHENOW Arb. Kais. Gesundheitsamte **48** pp. 425–460.

Chagasella **nom. n.**, to replace *Chagasia* Léger, preoccupied; MACHADO Brazil-Medico **25** p. 389.

Coccidium bigeminum, recorded from "Swift Foxes," Western United States; WEIDMAN J. Comp. Path. Ther. Edinburgh **28** p. 320.—*C.* **sp. n.** (unnamed), from *Talpa europaea*; VISENTINI Bol. Soc. Med.-Chirurg. Pavia **1914** No. 1.

Eimeria sp. from Human Faeces; WENYON Lancet London **1915** (2) p. 1404; WENYON J. Roy. Army Med. C. **25** p. 630.

Klossiella muris described in detail; STEVENSON Quart. J. Microsc. Sci. **61** pp. 127–135.

Pneumocystis carinii, no relationship with Trypanosomes; CARINI & MACIEL (a) Ann. Paulistas de Med. e Cirurgia **2** pp. 170–173; (b) Centralbl. Bakt. Jena 1 Abth Originale **77** (46–50).

Pesudoklossia **gen. n.**, for *P. glomerata* **sp. n.** from the kidney of *Tapes floridus* and *T. virgineus*; LÉGER & DUBOSCQ Arch. Zool. Paris **55** (Notes et Revue) p. 7.

(c) Haemosporidia.

Haemosporidia, systematic position discussed; MESNIL Paris Bul. Soc. path. exot. **8** p. 241.

Babesia bovis (=*Piroplasma bigeminum*) in Cattle, Gold Coast; MACFIE Ann. Trop. Med. London **9** p. 460.—*B. canis* in dog, Gold Coast; MACFIE T.c. p. 462.—*B.* sp. (or allied form), considered the cause of blackwater fever; BARRETO Arquiv. Hig. Pat. Exôt. **4** pp. 107–118.—*B.* has priority over *Piroplasma*; LEIPER J. Trop. Med. Hygiene **18** p. 7.

(*Leuco*) *Haemogregarina akodoni* **sp. n.**, from *Akodon fuliginosus* Brazil; CARINI & MACIEL Bull. Soc. Path. Exot. **8** p. 165.

Haemogregarina boodoni, from *Boodon fuliginosus*, redescribed (as n. sp.); PHISALIX Bul. Museum Paris **1914** p. 358.—*H. digueti* **sp. n.**, from *Sistrurus catenatus*; PHISALIX T.c. p. 168.—*H. francae*, **sp. n.**, from pigeon's blood; DE MELLO Ind. J. Med. Res. **3** p. 93.—*H. hartochi*, from *Gobius aurantus*, p. 142, *lo-bianci*, from *Torpedo marmorata* p. 144, *londoni*, from *Blennius trigloides*, p. 145, *marzinowskii*, from *Gobius jozo*, p. 144; *wladimirovi*, from *Gobius cruentatus*, p. 140, **spp. n.**; KOHL-YAKIMOFF & YAKIMOFF Centralbl. Bakt. Jena 1 Abth. Originale **76**.—*H.* sp. from *Cricetomys gambianus*, Congo Belge; RODHAIN, Paris Bul. Soc. path. exot. **8** p. 728.

Haemoproteus columbae, sporogony described; ADIE Ind. J. Med. Res. **2** p. 671.

Leucocytogregarina cuniculi, redescribed (as n. sp.); SANGIORGI Pathologica **6** p. 49.

Leucocytozoon, characters of genus, nature of host-cells, and schizogony described; FRANÇA Paris Bul. Soc. path. exot. **8** p. 229.—*L. anatis* **sp. n.**, from ducks, Ottawa, Canada, possibly the cause of a new disease; WICKWARE Parasitol. Cambridge **8** p. 17.—*L. ziemanni* discussed; LAVERAN Paris Bul. soc. path. exot. **7** pp. 461–462.

Nuttallia decumani **sp. n.**, from *Mus decumanus*, Gold Coast; MACFIE Ann Trop. Med. London **9** p. 462.

Piroplasma bigeminum found in cattle in Sierra Leone; YORKE & BLACKLOCK Ann. Trop. Med. London **9** p. 418.—*P.* sp. from horses in Panama: DARLING J. Infect. Dis. Chicago **13** pp. 197–202.—*P.* preferred to *Babesia*; MESNIL Paris Bul. Soc. path. exot. **8** p. 244.

Plasmodium cephalopi, redescribed (as n. sp.), from *Cephalopus grimmi*, Nyasaland; [BRUCE, HARVEY, HAMMERTON, DAVEY & BRUCE] Rep. Sleeping Sickness Comm. **1915** p. 203.—*P. malariae*, schizogonie; SWELLENGREBEL Batavia Genesk. Tydschr. Ned. Ind. **55** pp. 1–9.—*P. minasense*, found in the Iguana from Trinidad; WENYON J. Trop. Med. Hygiene **18** p. 138.—*P. praecox* Künstliche Züchtung, Teilung (Russ.); PEREKROPOV Mess. méd. vétér. soc. **25** pp. 1070–1075.—*P. tenue*, questions of specific identity with other malarial parasites; STEPHENS Ann. Trop. Med. London **9** pp. 169–172.—*P. vivax* var. *minuta* var. n.; AHMED EMIN Paris Bul. Soc. path. exot. **7** p. 387.—*P.* sp., from *Epomophorus franqueti* Congo Belge; RODHAIN Bul. Soc. path. exot. **8** p. 729.—*P.* spp. sexual forms in blood of man; CRAIG Arch. Int. Med. Chicago **5** pp. 325–347.—*P.* spp., validity of certain recently described species and varieties; CRAIG J. Parasitol. Urbana Ill. **1** pp. 85–94.

Rangelia **gen. n.** for *Piroplasma vitalii*, the cause of Nambi-Uvu in dogs; CARINI & MACIEL Annaes Paulistas de Medicina e Cirurgia **3** pp. 65–71.—*R. vitalii* redescribed; CARINI Centralbl. Bakt. Jena 1 Abth. Originale **77** pp. 265–271.

Theileria tachyglossi **sp. n.**, from blood of *Tachyglossus aculeatus*; PRIESTLEY Ann. Trop. Med. London **9** pp. 233–236.—*T. mutans* in cattle and sheep, Gold Coast; MACFIE Ann. Trop. Med. London **9** p. 460.—*T.* sp. (? *mutans*) found in Cattle in Sierra Leone; YORKE & BLACKLOCK Ann. Trop. Med. London **9** p. 418.

(d) Myxosporidia (including Microsporidia).

Myxosporidia aus Salmoniden von Kamtschatka; ZSCHOKKE und HEITZ Revue Suisse Zool. **22** pp. 195–256.

Myxosporidia parasitic in *Pleuronectidae* in Hokkaido; FUJITA Dobuts Z. Tokyo **27** pp. 487–491.

Agarella **gen. n.**, for *A. gracilis*, **sp. n.** from testis of *Lepidosiren paradoxa*; DUNKERLY Proc. R. Phys. Soc. Edinburgh **19** p. 213.

Bathymyxum, **gen. n.** for *B. piscium*, **sp. n.**, from intestine of *Melamphaes mizolepis* and *Stomias boa*; NUSBAUM-HILAROWICZ Bul. Inst. Océanogr. Monaco No. **308**.

Henneguya zschokkei recorded from *Coregonus* spp.; LEVANDER Medd. Soc. Fauna & Flora Fennica **41** pp. 14–17 [German abstract 189].

Lentospora dermatobia **n. sp.** in the skin of the Japanese eel (Japanese); ISHII S. Dobuts Z. Tokyo **27** pp. 471–474.

Myxobolus toyamai **sp. n.** from gills of the Japanese carp; KUDO Dobuts. Z. Tokyo **27** 1915 pp. 517–523.

Nosema apis described and discussed; IMMS J. Roy. Agricultural Soc. **75** pp. 62–70.

Thelohania corethrae **sp. n.**, from larvae of *Corethra* (*Savomyia*) *plumicornis*; SCHUBERG & RODRIGUEZ Berlin Arb. Kais. Gesundheitsamt. **50** p. 122.

(e) Actinomyxidia.

[Nothing.]

(f) Sarcosporidia.

Sarcosporidia, structure and systematic position discussed; MOROFF Arch. Protistenkunde Jena **35** pp. 256–315.

Sarcosporidia found in Mammalia and Aves in Panama; DARLING J. Parasitol. Urbana Ill. **1** pp. 113–120.

Sarcocystis leporum from Rabbit p. 214, *setophagae* from Redstart p. 217, **spp. n.** United States; CRAWLEY Philadelphia Proc. Acad. Nat. Sci. **66**.—*S. muris*, schizogony described; ERDMANN Proc. Soc. Exp. Biol. Med. **11** p. 152.

(g) Haplosporidia.

Rhinosporidium equi **sp. n.**, from the nose of a horse, S. Africa; ZSCHOKKE Schweiz.-Arch. Tierheilk. **55** p. 641.—*R. kinealyi*, 15 cases from man, affecting various parts of the body, Madras; TIRUMURTI Practitioner **93** pp. 704–719.

SPOROZOA *INCERTAE SEDIS*.

[Various and uncertain.]

Anaplasma marginale, Culture in vitro; VEGLIA Giorn. R. Acad. Med. di Torino **78** pp. 33–39.

Bartonella **nom. n.** to replace *Bartonia* [below] preoccupied, STRONG, TYZZER, SELLARDS, BRUES & GASTIABURU, Rep. first Harvard Exp. S. America, 1915, p. 32.—*B. bacilliformis*, stages in life-cycle identified; TOWNSEND Washington D.C. J. Acad. Sci. **1915** pp. 662–667.

Bartonia **gen. n.** *bacilliformis* **sp. n.** Peru, parasite of red blood cells, cause of Oroya fever, S. America; STRONG, TYZZER, BRUES & SELLARDS J. Amer. Med. Ass. Chicago **61** p. 1715.

Grahamella **gen. n.** for *G. muris* **sp. n.**, name proposed for the "Graham-Smith" bodies from the red blood-corpuscles of *Mus decumanus* from Brazil; CARINI Bull. Soc. Path Exot. **8** pp. 103–104.

"Kurloff-bodies" from *Cavia cobaya*. their characters and significance; FLU Mededeel. Burgerl. Geneesk. Dienst. Ned.-Indie **1914** Hft. **3** pp. 19–40; Nature of the "Kurloff bodies"; SANGIORGI Pathologica **7** p. 263.

Paraplasma flavigenum considered the cause of yellow fever; SEIDELIN J. Trop. Med. Hygiene **18** pp. 38–40.—*P. f.*, transmission experiments; SEIDELIN Yellow Fever Bureau Bull. **3** pp. 203–208.—*P. f.*, capable of transmission by artificial infection; SEIDELIN & CONNAL Yellow Fever Bureau Bull. Supplement **2** pp. 427–478.—*P. f.* not the parasite of yellow fever; WENYON & LOW J. Trop. Med. Hygiene **18** p. 55.—"Seidelin bodies" (= *Paraplasma flavigenum*) found in blood of normal guinea-pigs; THOMSON Yellow Fever Bureau Bull. Supplement **2** pp. 479–482. *P. f.* not an organism, and not connected with yellow fever, FOWLER, SIMPSON, ROSS, LEISHMAN & BALFOUR, Yellow Fever Commission (West Africa). Third Report.

Telosporidium [apparently **gen. n.**, for unidentifiable telosporidian spores] and *typographi* **sp. n.**, from *Ips typographicus*; FUCHS Zool. Jahrb. Jena Abth, Syst. **38** p. 163.

Toxoplasma ratti **sp. n.**, from lung-smears of *Mus rattus albinus*; SANGIORGI Torino Giorn. Acc. Med. **77** p. 83.—*T. gondii*, structure, life-history and artificial infection of various Muridae; LAVERAN Paris Bul. Soc. path. exot. **8** p. 58.—*T.* spp., redescribed; MIGLIANO Os toxoplasmas, Rio de Janeiro.

4. MASTIGOPHORA.

(a) Flagellata.

Astasia levis **sp. n.**, from Danube; BĚLAŘ Arch. Protistenkunde Jena **36** p. 21.

Bodo edax, Bau, Teilung und Encystierung; KÜHN Arch. Protistenkunde Jena **35** p. 212.—*B. ovatus* recorded from *Lagopus mutus*; GALLI-VALERIO Centralbl. Bakt. Jena 1 Abth. Originale **75** p. 47.

Callimastigidae fam. n., for *Callimastix* only, DA FONSECA, Estudos sobre os flagellados dos mammiferos do Brazil, p. 111.

Calonympha grassii A. Fòa, from the gut of *Calotermes* (*Cryptotermes*) *grassii*, from Iquique, Chile, redescribed; JANICKI Zeit. wiss. Zool. **112** p. 620.

Chilomastix bittencourti **sp. n.**, from *Mus norvegicus*, Brazil; DA FONSECA Brazil-Medico **29** p. 121.—*C. caprae*, from rumen of *Capra hircus*, p. 118, *cuniculi* from caecum of *Oryctolagus cuniculus*, p. 119, **spp. n.**, DA FONSECA, Estudos sobre os flagellados dos mammiferos do Brazil.

Chilomitus **gen. n.**, *caviae* **sp. n.**, from caecum of *Cavia* spp., DA FONSECA T.c. p. 139.

Cladonema, name preoccupied; FAUST Science New York (N. Ser.) **40** p. 934.

Crithidia leptocoridis **sp. n.**, from *Leptocoris trivittatus*; MCCULLOCH Berkeley Univ. Cal. Pub. Zool. **16** No. 1 pp. 1–22.

Cyathomastix **gen. n.**, for *C. hominis* **sp. n.**, from man; PROWAZEK & WERNER Arch. Schiffshyg. Leipzig **18** Beiheft 5 p. 162.

Devescovina striata A. Fòa, from gut of *Calotermes* spp., S. America, redescribed; JANICKI Zeit. wiss. Zool. **112** p. 632.

Endotrypanum schaudinni, from *Cholaepus didactylus*, redescribed; DARLING J. Med. Res. Boston **31** pp. 195–203.

Enteromonas **gen. n.**, for *E. hominis* **sp. n.**, from human intestine, Brazil; DA FONESCA Brazil-Medico **29** p. 281.

Englena lata, p. 331, *pascheri*, p. 328, *pseudospiroides*, p. 323, **spp. n.**, and *E. tripteris*, var. *crassa*, var. n., p. 325, Russia; SWIRENKO Arch. Hydrobiol. Stuttgart **10**.

Eutreptiella **gen. n.**, for *E. marina* **sp. n.** Brazil; DA CUNHA Brazil-Medico **27** p. 203.

Foaina **gen. n.**, for *F. gracilis* **sp. n.**, from the gut of *Calotermes castaneus* Burm. from Honolulu; JANICKI Zeit. wiss. Zool. **112** p. 615.

Giardia microti **sp. n.**, from *Microtus californicus californicus*; KOFOID & CHRISTIANSEN Washington D.C. Proc. Nation. Acad. Sci. **1** p. 548.—Redescribed in full detail (as n. sp.); KOFOID & CHRISTIANSEN Berkeley Univ. Cal. Pub. Zool. **16** No. 2 pp. 23–29.

Helkesimastix **gen. n.**, for *H. faecicola* **sp. n.**, from goat-dung; WOODCOCK & DAFAGE Proc. Roy. Soc. B. **88** p. 353.

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III. PORIFERA OR SPONGIDA

ARRANGED BY

R. W. HAROLD ROW.

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†*Myrmecium cylindricum* **sp. n.**, Polish Jurassic, SIEMIRADZKI Wien Beitr. Pal. Geol. ÖstUng. **36** p. 205.

†*Peronidella elegans* **sp. n.**, Polish Jurassic, SIEMIRADZKI T.c. p. 202.

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(i) HOMOSCLEROPHORA.

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(ii) ASTROTETRAXONIDA.

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Siphonochalina anonyma, **sp. n.**, Saldanha Bay, STEPHENS Trans. R. Soc. Edinburgh **50** p. 459.

Spongilla nana, **sp. n.**, from fresh and brackish waters, East Coast of India, ANNANDALE Mem. Ind. Mus. **5** p. 32.

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†*Corallidium cylindricum*, **sp. n.**, Polish Jurassic, SIEMIRADZKI T.c. p. 168.

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†*Proseliscothon*, **gen. n.**, *cracoviense*, **sp. n.**, Polish Jurassic, SIEMIRADZKI Wien Beitr. Pal. Geol. Öst. Ung. **36** p. 186.

†*Pyrgochonia profunda*, **sp. n.**, Polish Jurassic, SIEMIRADZKI T.c. p. 183.

†*Tretotoechus* **gen. n.**, p. 56, *coniformis*, **sp. n.** p. 57 Jurassic of Switzerland, OPPLIGER Abhandl. Schweizer. Paläont. Ges. Genève **40**.

EUCERATOSA.

[Nothing.]

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IV. COELENTERATA

ARRANGED BY

F. W. EDWARDS.

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V. ECHINODERMA

ARRANGED BY

H. B. PRESTON.

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C. ECHINOIDEA.

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†*Amblypygus merrilli* **sp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S Geol. Surv. **54** p. 165 pls. lxxvi figs. 1a–d ; lxxvii figs. 1a–b 2a–b ; lxxviii figs. 1a–b.

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†*Ananchytes*, CLARK & TWITCHELL **49**.

†*Anisester souverbiei*, LAMBERT **117**.

†*Astrodapsis tumidus* with *A. t. cierboensis* **subsp. n.** *A. altus* **sp. n.** *A. whitneyi* Miocene, California Kew Bull. Geol. Univ. Calfornia **8** pp. 370–372 pls. xxxix figs. 5a, b, 7a–c ; xl figs. 3a, b, 4 ; *A.* with *A. arnoldi* **sp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 197–203, 217 pl. xcv fig. 1 ; *A.* with *A. whitneyi* Raymond, Tertiary, California figured CLARK Bull. Dept. Geol. Univ. California **8** pl. xlii fig. 1.

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†*Breynella gregoryi* **sp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 148 lxviii figs. a–f.

†*Brissoides*, LAMBERT **117**.

Brissopsis lemonnieri, KOEHLER **sp. n.** Jubilé du Prof. Le Monnier, Nancy **1913** (81–96) fig.

†*Brissopsis*, CLARK & TWITCHELL **49**.

†*Brissus dilatatus*, LAMBERT **117** ; *B.* CLARK & TWITCHELL **49**.

†*Cardiaster* with *C. curtus* **sp. n.** Mesozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 83–84 pl. xxxvii figs. 1a–h.

†*Cassidulus* with *C. conoideus* **sp. n.** Mesozoic U.S.A. CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 74–81 pl. xxvii figs. 3a–d ; *C.* with *C.* (*Rhyncopygus* ?) *holmesi* (*R.*) *raveneli, depressus, C.* (*Pygorhynchus*) *carolinensis, georgiensis, alabamensis, bassleri, berryi* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 140–147, 170–172, 211, 220 pls. lxv fig. 3a–d, 5a–d ; lxvi figs. 1a–c, 2a–b, 4a–e, 5a–b ; lxvii figs. 2a–g ; lxxix figs. 2a–d ; lxxx figs. 3a–d ; xcv figs. 5a–d ; ci figs. 3a–d ; *C. taramellii* **sp. n.** Eocene, Italy DAINELLI L'Eocene friulano Florence **1915** ; *C.* COOKE **50**.

†*Catopygus*, CLARK & TWITCHELL **49**.

Centrechinus savignyi, CLARK **41** ; *C.* CARY **22**.

Centrostephanus rodgersii, MORTENSEN **149**.

†*Chirodota*, CLARK & TWITCHELL **49**.

Cidaris tribuloides TENNENT **205**.

†*Cidaris* with *C. pratti, smithi, georgiana* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 113–116, 158–159, 179 pls. lv fig. 3 ; lxxii figs. 2a–c, 3, 4 ; *C.* with *C. shastensis, dilleri, plumasensis, tehamaensis* **spp. n.** Mesozoic U.S.A. CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 23, 31, 44 pl. i figs. 5, 6 ; iv fig. 3 ; ix fig. 1.

Clypeaster pallidus West Indies ; *europacificus* Tropical Pacific ; *ochrus* Mexico **spp. n.** *C. lampus* **nom. n.** for *C. latissimus* A. Agassiz, 1883, CLARK Mem. Mus. Comp. Zool. Harvard Coll. **46** pp. 25–42 pl. 141 figs. 1–3 ; *C.* with *C. joubini* **sp. n.** W. Indies, LAMBERT Lyon Ann. soc. linn. **51** p. 285.

†*Clypeaster* with *C. Dandolei* **sp. n.**, Miocene Sardinia, LOVISATO Roma. Boll. Comitato geol. **44** pp. 179–193 figs. 1–4 c ; *C. pomai, canali, zambellii, scarsellinii, tazzolii, griolii, sperii* **spp. n.** Miocene Sardinia, LOVISATO Riv. ital. paleont. Perugia **20** pp. 89–90 pl. 1 figs. 1–7d ; *C. gippslandicus*, GREGORY **86** ; *C.* AIRAGHI, **1** ; CLARK, **41** & **45** ; CLARK & TWITCHELL, **49** ; SPENGLER, **199**.

†*Clypeus mulleri* ODLING **158**.

†*Coelophorus* with *C. aldrichi, sloan*, **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 117, 158, 180–181 pls. lxxiii figs. 6a–b, 7a–c ; lxxxiv figs 5a–b.

†*Coelopleurus anaudi* LAMBERT **117**.

†*Collyrites elliptica* PETITCLERC **167**.

†*Conoclypeus stefaninii* **sp. n.** Eocene Italy, DAINELLI L'Eocène friulano Florence **1915**.

†*Coptechinus bittneri* **sp. n.** Eocene, Italy, DAINELLI L'Eocene friulano Florence **1915**.

†*Coptosoma* CLARK & TWITCHELL **49**.

†*Cottaldia rotula* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 57 pl. xx figs. 1a–d.

†*Cyphosoma* CLARK & TWITCHELL **49**.

†*Dendraster* with *D. arnoldi, coalingaensis* **spp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 190–197, 216, 223 pls. lxxxviii figs. 4a–d ; xc figs. 2a–c.

Diadema setosum JACOBS **108**.

†*Diplopodia* CLARK & TWITCHELL **49**.

†*Diplothecanthus* with *D. dalli* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. 54 pp. 218–219 pls. xcix figs. 2a–b ; c. figs. 1a–b ; *D.* BROWN **20**.

†*Discoidea cylindrica* BROOKS, **19** ; NORTH, **156**.

†*Duncaniaster* GREGORY **86**.

†*Echinanthus* with *E. georgiensis* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. geol. Surv. **54** p. 67, 139 pl. lxv fig. 1a-d ; *E.* LAMBERT **120**.

Echinarachnius parma var *obesa* **var. n.** N. Pacific, CLARK Mem. Mus. Comp. Zool. Harvard Coll. **46** p. 67 pl 143 figs. 5–8.

†*Echinarachnius* CLARK & TWITCHELL **49**.

†*Echinobrissus* with *E. angustatus* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 69–70 pl. xxvii figs. 2a–c ; *E. woodwardi, clunicularis*, ODLING **158**.

Echinocardium cordatum MEDES, **138** ; PIXELL-GOODRICH, **170**.

†*Echinocardium* with *E. depressum* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 213–214 pl. xcviii figs. 3a–c.

†*Echinocidaris* CLARK & TWITCHELL **49**.

†*Echinocorys vulgaris* BROOKS **19**.

†*Echinocrinus* GIRTY **77**.

Echinocyamus megapetalus Mauritius; *elongatus* Hawaiian Islands; *platytatus* Victoria; *incertus* Hawaiian Islands; **spp. n.**, CLARK Mem. Mus. Comp. Zool. Harvard Coll. **46** pp. 60–64 pls. 127 figs. 1–6 pl. 128 figs. 1–3 & figs.; *E. pusillus* MEDES **138**.

†*Echinocyamus* with *E. texanus, vaughani* **spp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 119–120, 160 pl. lvii figs. 2a–d; lxxiv figs. 1a–d; *E. pusillus* COUFFON **63**.

Echinodiscus auritus CLARK **41**.

†*Echinodiscus* LAMBERT **120**.

Echinoidea CLARK, **44** & **45**; CLARKE & WHEELER, **48**; FABIANI, **66**; HOFSTEN, **103**; MONTUORI, **145**; MORTENSEN, **150**; TERNI, **206**; WESTER, **216**.

†*Echinoidea* LAMBERT, **119**; SCHOENDORF, **189**.

Echinolampas CLARK **41**.

†*Echinolampas* with *E. alrichi* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 149, 173 pl. lxxxi figs. 1a–d, 2; *E. similis* LAMBERT, **120** & **117**; BROWN, **20**; COOKE, **50**.

Echinometra mathœi CLARK **41**; JACOBS, **108**.

Echinostrephus molare CLARKE **41**.

Echinothrix diadema CLARK **41**.

Echinus acutus GRAY, **85**; HERDMAN, **95**; *Echinus esculentus* MEDES, **138**; MOORE, WHITLEY & ADAMS, **147**; MOORE, WHITLEY & WEBSTER, **148**; RETZIUS, **179**; *E. e.* var *depressus* MEYER, **139**; *E. microtuberculatus* HERBST, **94**; RUNNSTRÖM, **183**; *E. miliaris* SCHMALZ, **186**; MILLIGAN, **144**.

†*Echinus* CLARK & TWITCHELL **49**.

†*Enallaster* CLARK & TWITCHELL **49**.

†*Eucope* CLARK & TWITCHELL **49**.

†*Eoscutum dubaleni* LAMBERT **120**.

†*Eupatagus carolinensis floridanus* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 153, 176 pls. lxxi figs. 3a–d, 4; lxxxii figs. 3a–d; lxxxiii figs. 1a–c, 2a–d; *E.* COOKE **50**.

†*Euspatangus* SPENGLER **199**.

Fibularia volva CLARK **41**.

†*Fibularia affinis* LAMBERT **120**.—*F* CLARK & TWITCHELL, **49**; LAMBERT **117**.

Fibulariidae CLARK **45**.

†*Gagaria americana* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 159 pl. lxxiii figs. 8a–b.

†*Galerites* CLARK & TWITCHELL **49**.

†*Goniopygus* CLARK & TWITCHELL **49**.

Gymnechinus robillardi CLARK **41**.

Heliocidaris MORTENSEN **149**.

†*Hemiaster* with *H. bexari, comanchei, beecheri* **spp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 88–98 pl. xlvi figs. 1a–e, 2a–d, 1 figs. 2a–c.

†*Hemicidaris bravenderi* ODLING **158**; *H.* CLARK & TWITCHELL **49**.

†*Hemipatagus argutus, subrostratus* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 150–151 pl. lxix figs. 1a–d, 2a–b.

†*Hemipedina* CLARK & TWITCHELL **49**.

†*Heterodiadema ornatum* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 56 pl. xviii figs. 2a–f.

Hipponoë (*Tripneustes*) *esculenta* TENNENT **205**.

†*Holaster* CLARK & TWITCHELL **49**; GREGORY **86**.

†*Holectypus* with *H. pealei, cragini* **spp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 33–34, 65 pl. v figs. 3a–b, 4; *H. depressus* PETITCLERC **167**.

Holopneustes purpurascens MORTENSEN **149**.

†*Hypodiadema elegans* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 52 pl. xiv figs. 2a–b.

†*Hypsospatangus meneghini* LAMBERT **120**.

†*Lagana tenuissima* LAMBERT **120**.

Laganidae CLARK **45**.

Laganum depressum CLARK **41**; *L.* MEDES **138**.

†*Laganum* with *L. eldridgei, archerensis, johnsoni, floridanum, dalli* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 122, 160–164 pl. lxxiv figs. 1a–d, 2a–d; lxxv figs. 1a–d, 2a–d, 3a–d, 4a–d.

†*Leiocidaris* CLARK & TWITCHELL **49**.

†*Leptarbacia argutus* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 53 pl. xvi figs. 1a–f.

†*Linthia* with *L. alabamensis, wilmingtonensis* **spp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 99, 152–153, 214 pl. lxx figs. 3a–c, lxxi figs. 1a–d, 2a–d; *L.* LAMBERT **117**.

Lovenia elongata CLARK **41**.

†*Lovenia forbesi* GREGORY **86**.

†*Macropneustes* with *M. carolinensis* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 154–153 pl. lxxi figs. 5a–d.

Maretia alta CLARK **41**.

†*Mellita* CLARK & TWITCHELL **49**.

†*Metalia* BROWN **20**; *M.* CLARK & TWITCHELL **49**.

†*Micropsis lineatus* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 63 pl. xxv. figs. 1a–c.

†*Monostychia australis* GREGORY **86**.

†*Mortonella* CLARK & TWITCHELL **49**.

†*Nucleopygus delfortriei* LAMBERT **117**.

†*Oligopygus* with *O. floridanus* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 166–169 pl. lxxix figs. 1a–f.

†*Oligopygus* COOKE **50**.

†*Orthechinus pretiosus* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol Surv. **54** p. 118 pl. lvi figs, 2a–b.

†*Orthopsis* with *O. planulata* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 54 pl. xvi figs. 2a–c.

†*Palæechinus* CHAPMAN **24**.

Paracentrotus HERLANT **96**; RUNNSTRÖM **183** & **184**.

†*Pedinopsts* CLARK & TWITCHELL **49**.

†*Periarchus* with *P. protuberans* **sp. n.** Cainozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 130–136 pl. lxii figs. 3a–f.

Phyllacanthus imperialis CLARK **41**; *P. parispinus* MORTENSEN **149**.

†*Præscutella degrangei* LAMBERT **120**.

Prionocidaris baculosa CLARK **41**.

†*Psammechinus* CLARK & TWITCHELL **49**.

†*Pseudodiadema* CLARK & TWITCHELL **49**.

Pseudoboletia maculata CLARKE **41**.

Pseudomaretia alta, CLARK **41**.

†*Pygurus*, CLARK & TWITCHELL **49**; *P. michelini*, ODLING **158**.

†*Pyrina damesi* **sp. n.** Eocene, Italy, DAINELLI L'Eocene friulano Florence **1915**; *P.* CLARK & TWITCHELL **49**.

†*Salenia*, CLARK & TWITCHELL **49**.

Salmacis, CLARKE **41**.

†*Sarsella gregoryi* **sp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** p. 155 lxxvii figs. 2a–d.

†*Schizaster ottelii* **sp. n.** Eocene, Italy, DAINELLI L'Eocene friulano Florence **1915**; *S.* with *S. armiger, floridanus, americana* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 151–152, 175–176, 221, 227 pls. lxx figs. 1a–d; lxxxii figs. 1a–c, 2a–d; *S. arnaudi*, LAMBERT **117**; *S.* BROWN **20**.

†*Scutaster*, CLARK & TWITCHELL **49**.

†*Scutella gabbi* with *S. g.* **var. n.** *tenuis, S. pabloensis* **sp. n.** Miocene, California, KEW Bull. Geol. Univ. California **8** pp. 367–369 pl. xxxix figs. 1–4, 6a, 6b.; *S. montanarii, graziolii, frattinii* **spp. n.** Miocene, Sardinia, LOVISATO Riv. ital. paleont. Perugia **20** pp. 110–112 pl. ii figs. 1–3; *S.* with *S. mississippiensis*; *tuorneyi andersoni* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 124–127, 182–189 pls. lix figs. 1a–f, 2; lx figs. 1a–d; lxxxv figs. 3a–d; *S. marginalis*, LAMBERT **120**.—*S.* CLARK **40**; LAMBERT **117**.

†? *Scutellaster*, CLARK & TWITCHELL **49**.

Scutellidae, CLARK **45**.

†*Sismondia* with ? *S. arnoldi, coalingaensis* **spp. n.** Cainozoic U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 121, 182–183 pl. lxxv figs. 1a–b, 2a–c; *S. marginalis*, LAMBERT **120**; *S.* BROWN **20**.

Spatangus purpureus, MEYER **139**; PIXELL-GOODRICH **170**.

†*Spatangus ornatus*, LAMBERT **120**; *S.* CLARK & TWITCHELL **49**.

Sphaerechinus granularis HERBST **94**; NOLF **155**.

†*Stomechinus*, CLARK & TWITCHELL **49**.

Stomopneustes variolaris, CLARK **41**.

Strongylocentrotus purpuratus, franciscanus **88**; *S. lividus*, VAN HERWERDEN **101**; HERBST **94**.

†*Strongylocentrotus*, CLARK & TWITCHELL **49**; LOEB **129**; MORTENSEN **149**.

Temnopleurus toreumaticus, CLARKE **41**.

†*Tournoueraster*, LAMBERT **117**.

Toxocidaris erythrogrammus, MORTENSEN **149**.

Toxopneustes pileolus, CLARK **41**; *T.* (*Lytechinus*) *variegatus*, TENNENT **205**; *T.* GOLDFARB **82**; JACOBS **108**; MEDES **138**.

†*Toxopneustes*, CLARK & TWITCHELL **49**.

†*Trematopygus*, CLARK & TWITCHELL **49**.

Tripneustes gratilla, CLARK **41**.

D. ASTEROIDEA.

Acanthaster planci, echinus, echinites, VERRILL **214**.

†*Agalmaster*, SCHUCHERT **190**.

†*Anorthaster* **gen. n.** Type *Palaeaster miamiensis*, Mill, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 125–127 pls. xiii fig. 4; xx fig. 1.

†*Anorthasterinæ* **subfam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 125.

Anseropoda luna, VERRILL **214**.

†*Archaster patersoni* **sp. n.** Tertiary S. Africa, SPENCER Rec. Albany Mus. **3** pp. 65–69 pl. ii.

Asterias tenuispina, CROZIER **57**; *A. rubens*, DUBOIS **63**; GEMMILL **71** & **76**; MILLIGAN **142**; RETZIUS **179**; VERRILL **214**; *A. tenuispina*, KRUEGER, **116**; *A.* GLASER **79** & **80**; HERDMAN **95**.

†*Asterias*, CLARK & TWITCHELL **49**; POMPECKJ **171**.

Asterina minuta, gibbosa, VERRILL **214**; *A.* H. **87**; ZELAROVICH **222**.

Asteroidea, CLARKE & WHEELER **48**; FOSSE **70**; MILLIGAN **143**; MONTUORI **145**; MORTENSEN **150**; WESTER **216**.

†*Asteroidea*, STAUFFERT **201**.

Astropecten irregularis, GEMMILL **71**; *A.* CLARK **41**; H., **87**; ZELAROVICH **222**.

†*Astropecten*, CLARK & TWITCHELL **49**; SCHUCHERT **190**.

†*Ataxaster*, SCHUCHERT **190**.

†*Australaster* **gen. n.** Type *Palaester* (*Monaster*) *giganteus*, Eth. SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 72.

Brachiolaria hibernica **sp. n.** West of Ireland, GEMMILL Edinburgh Proc. R. Phys. Soc. **19** 1911 pl. vi.

†*Calliastrella* **nom. n.** for *Calliaster mirus* (Trautschold), SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 190.

†*Calliasterellidæ* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 190.

†*Calliderma* with *C. lâmberti* **sp. n.** Upper Cretaceous, France, VALETTE Auxerre Bull. soc. sci. hist. nat. **1914** pp. 20–25.

†*Cheiropteraster*, SCHUCHERT **190**.

†*Compsaster*, SCHUCHERT **190**.

†*Compsasteridae* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 191.

†*Crateraster*, VALETTE **212**.

†*Cryptozonia*, SCHUCHERT **190**.

Cuenotaster **nom. n.** for *Leucaster* Koehler THIÉRY Rev. paleozool. **18** p. 49.

Culcita schmideliana, CLARK **41**.

†*Devonaster* with *D. chemungensis* **gen. & sp. n.** Devon, N. America, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 97 101 pls. xi–xii.

Echinaster eridanella, CLARK **41**; *E. sepositus*, NACHTSHEIM **152**; NUSBAUM & OXNER **157**.

†*Echinasterella*, SCHUCHERT **190**.

†*Echinasterias*, SCHUCHERT **190**.

†*Echinodiscaster*, SCHUCHERT **190**.

†*Echinostella*, SCHUCHERT **190**.

†*Eifelaster*, SCHUCHERT **190**.

†*Goniaster*, CLARK & TWITCHELL **49**.

†*Helianthaster*, SCHUCHERT **190**.

Hippasterias phrygiana, MEYER **139**.

†*Hudsoniaster* with *H. milleri* Ordovician, N. America; *H. batheri* Ordovician, Scotland **spp. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 60, 65 pls. iv fig. 2; iii fig. 3.

†*Hudsonasteridae* **fam. n.** *Phanerozonia*, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 53.

†*Huraeaster* **gen. n.** *H. sellatus* **sp. n.** Upper Cretaceous, France, VALETTE Auxerre Bul. soc. sci. nat. **1914** pp. 32–35.

†*Jaekelaster*, SCHUCHERT **190**.

†*Lepidaster*, SCHUCHERT **190**.

†*Lepidasterella* with *L. babcocki* **gen.** & **sp. n.** Devonian, America, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 160 pl. xxv fig. 2.

†*Lepidasteridae*, SCHUCHERT **190**.

Linckia laevigata, CLARK **41**; H. **87**.

†*Lindströmaster*, SCHUCHERT **190**.

†*Lophidiaster* with ? *L. mirabilis* **sp. n.** Upper Cretaceous, France, VALETTE Auxerre Bul. soc. sci. hist. nat. **1914** pp. 62–65.

†*Loriolaster*, SCHUCHERT **190**.

Luidia ciliaris (Larval stage) **fig.** GEMMILL Edinburgh Proc. R. Phys. Soc. **19** p. 193 pl. vi; *L. maculata*, CLARK **41**. *L. sarsi*, GEMMILL **73**; *L.* GRAY **85**.

†*Medusaster*, SCHUCHERT **190**.

†*Metopaster*, LAMBERT **119**; VALETTE **212**.

Metrodira subulata, CLARK **41**.

†*Mesopalaeaster* with *M. intermedius*, *M.* (?) *lanceolatus*, *M. proavitus*, *M.* (?) *cataractensis* **gen.** & **spp. n.** Ordovician and Silurian, N. America, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 74, 79, 82–83, 89 pls. vii–xi, iv fig. 3.

†*Mesopalaeasterinae* **subfam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 74.

†*Miomaster*, SCHUCHERT **190**.

†*Mitraster*, VALETTE **212**.

†*Monaster*, SCHUCHERT **190**.

†*Monasteridae* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 170.

†*Neopalaeaster* **gen. n.** Type *Palaeaster crawfordsvillensis*, Mill. SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 134–137 pls. xviii fig. 5; xxiii fig. 4.

†*Neopalaeasteridae* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 134.

†*Ophryaster*, VALETTE **212**.

Oreaster, CLARK **41**.

Orthasterias, H. **87**.

†*Palaeaster niagarensis*, PARKS **161**; *P.* CHAPMAN **24**; SCHUCHERT **190**.

†*Palaeocoma*, CHAPMAN **24**.

†*Palaeosolaster*, SCHUCHERT **190**.

†*Palaeosolasteridae* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 207.

†*Palaeostella*, SCHUCHERT **190**.

†*Palasterina*, SCHUCHERT **190**.

†*Palasterinidae*, SCHUCHERT **190**.

†*Palasteriscidae*, SCHUCHERT **190**.

†*Palasteriscus*, SCHUCHERT **190**.

Palmipes membranaceus, BAUER **12**; *P.* ZELAROVICH **222**.

†*Pentaceros*, CLARK & TWITCHELL **49**.

†*Pentagonaster*, CLARK & TWITCHELL **49**.

†*Petraster*, SCHUCHERT **190**.

†*Phanerozonia*, SCHUCHERT **190**.

Pisaster, H. **87**.

Porania pulvillus, GEMMILL **71**, **72** & **75**.

†*Promopalæaster* with *P. prenuntius*, *bellulus* **gen.** & **spp. n.** Ordovician, America, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 102–125 pls. xiii–xxiii, xxv.

†*Promopalæasteridae* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 73.

†*Promopalæasterinæ* **subfam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 102

†*Pseudopalasterina*, SCHUCHERT **190**.

Pteraster hastatus **sp. n.** S. Greenland MORTENSEN Kjöbenhavn Nath. Medd. **66** p. 37; *P. militaris*, HERDMAN **95**.

†*Pycinaster* with *P. lamberti* **sp. n.** Upper Cretaceous, France, VALETTE Auxerre Bul. soc. sci. hist. nat. 1914 pp. 35-43; *P.* FILLIOZAT **68**.

†*Rhenaster*, SCHUCHERT **190**.

†*Schœnaster*, SCHUCHERT **190**.

†*Schœnasteridæ* **fam. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 202.

†*Schuchertia* with *S. laxata* Ordovician, America; *S. ordinaria* Silurian, America **spp. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 195-199 pls. xxxii-xxxiii.

†*Schuchertiidæ* **fam. n**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 194.

†*Siluraster*, SCHUCHERT **190**.

Siraster tuberculatus **gen. & sp. n.** Ceylon, CLARK Spol. Zeylan **10** pp. 86-88.

Solaster papposus, GEMMILL **71**.

†*Spaniaster* SCHUCHERT **190**.

†*Spenceria*, LAMBERT **119**.

†*Stauranderaster*, VALETTE **212**.

Stellaster squamulosus (Studer) should be placed in *Siraster* **gen. n.**, CLARK Spol. Zeylan **10** p. 88.

†*Stenaster*, SCHUCHERT **190**.

†*Stenasteridæ* **fam. n.** SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 163.

†*Tetraster wyville-thomsoni* = *Hudsonaster batheri*, BATHER Geol. Mag. **2** p. 426; *T.* SCHUCHERT **190**.

†*Trimeraster*, SCHUCHERT **190**.

†*Uranaster*, SCHUCHERT **190**.

†*Urasterella* with *U. ulrichi*, Paleozoic, America, *U. girvanensis* Ordovician, Scotland **spp. n.**, SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 173-189 pls. xxvii-xxx.—*U. pulchella* HUDSON **104**; *U.* CHAPMAN **24**.

†*Urastrellidæ* **fam. n.**, SCHUCHERT Smiths. U.S. Nat. Mus. Bull. **88** p. 172.

†*Valeitaster*, VALETTE **212**.

†*Xenaster*, SCHUCHERT **190**.

E. OPHIUROIDEA.

†*Aganaster*, SCHUCHERT **190**.

†*Aganasteridae*, SCHUCHERT **190**.

†*Alepidaster*, SCHUCHERT **190**.

Amphiactis **gen. n.** *A. umbonata* **sp. n.**, Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 66-67.

Amphilepididæ **fam. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 66.

Amphilepis, MATSUMOTO **136**.

Amphilimna, MATSUMOTO **136**.

Amphiocnida inequalis **sp. n.** Hong Kong, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 236 pl. ix figs. 5, 6.

Amphiodia gyraspis Porto Rico; *A. mesopoma* Torres Straits **spp. n.**, CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 245-247 pls. vi figs. 11, 14; vii figs. 1, 4; *A.* MATSUMOTO **136**.

Amphiophiura **gen. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 77; *A. metabula, oedignatha* **spp. n.** W. Indies, CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 311-312 pl. xvii figs. 1-3, 10-12.

Amphioplus asterictus Japan; *A. cyrtacanthus* Philippines; *A. lobatodes* Japan; *A. parviclypeus* Torres Straits **spp. n.**, CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 252-255 pl. vii figs. 5, 8, 9, 11-15; *A.* MATSUMOTO **136**.

Amphipholis with *A. japonica* **sp. n.** Japan, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 69, 71; *A. pentacantha* **sp. n.** West Indies, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 241 pl. vi figs. 1, 2.

Amphipholizona **gen. n.** (*Ophiolepididae*) *A. delicata* **sp. n.** W. Indies, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 335 pl. xx figs. 1-2.

Amphiurinae, MATSUMOTO **136**.

Amphiuridae, CLARK **47**; MATSUMOTO **136**.

Amphiura goniodes off Barbodos: *A. leptopholida* Japan; *A. leptotata* Philippines; *A. microsoma* Torres Straits; *A. multispina* Japan; *A. poecila* Victoria; *A. septemspinosa* Torres Straits; *A. syntarachna* Japan **spp. n.**, CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 225, 226-232 pls. iv figs. 7, 8, 11, 12, 13, 14; v figs. 1, 2, 3, 4, 5, 7, 12, 13; *A.* with *A. vadicola*,

aestuarii **spp. n.** Japan, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 67, 69, 71–73; *A.* ZERNOW **223**.

†*Amphiura* with *A. senonensis* **sp. n.** Upper Cretaceous, France, VALETTE Auxerre Bull. soc. sci. hist. nat. **1914** pp. 14–18; *A.* CLARK & TWITCHELL **49**.

Anthenea, CLARK **41**.

Anthophiura, MATSUMOTO **136**.

Aspidophiura **gen. n.** with *A. watasei* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 76–77.

†*Aspidura* (?) *idahoensis* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 23 pl. i fig. 4.

Asteronychinae **n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 51–52.

Asteronyx, MATSUMOTO **136**.

Asteroporpa pulchra **sp. n.** Off Barbados, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 182 pl. ii fig. 7; *A.* MATSUMOTO **136**.

Asteroschema, MATSUMOTO **136**.

Asteroschematinae, MATSUMOTO **136**.

Astroboa, MATSUMOTO **136**.

Astrocaneum, MATSUMOTO **136**.

Astroceras, MATSUMOTO **136**.

Astrochalcis, MATSUMOTO **136**.

Astrochele, MATSUMOTO **136**.

Astrochlamys, MATSUMOTO **136**.

Astrocladus with *A. arctos* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 56–57.

Astroclon, MATSUMOTO **136**.

Astrocnida, MATSUMOTO **136**.

Astrocomus, MATSUMOTO **136**.

Astrocyclus, MATSUMOTO **136**.

Astrodactylus, MATSUMOTO **136**.

Astrodendrum, MATSUMOTO **136**.

Astrodia, MATSUMOTO **136**.

Astrogomphus, MATSUMOTO **136**.

Astrogordius, MATSUMOTO **136**.

Astrophiura cavellae **sp. n.** Atlantic Coast of S. Africa, KOEHLER Bull. Inst. Ocean. Monaco **311** pp. 1–16 figs. and C. R. Ac. Sci. **161** pp. 604–606; *A.* MATSUMOTO **136**.

Astrophytum, MATSUMOTO **136**.

Astrospartus, MATSUMOTO **136**.

Astrothamnus **gen. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 59.

Astrothorax, MATSUMOTO **136**.

Astrothrombus, MATSUMOTO **136**.

Astrotoma, MATSUMOTO **136**.

Astrotominae **n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** 55–56, 59.

Bathypectinura with *B. gotoi* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 87.

†*Bdellacoma* SCHUCHERT **190**.

†*Bohemura* SCHUCHERT **190**.

†*Bundenbachia* SCHUCHERT **190**.

Chilophiurida **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 74.

†*Cholaster* SCHUCHERT **190**.

†*Cholasteridae* SCHUCHERT **190**.

Conocladus MATSUMOTO **136**.

†*Cribellites* SCHUCHERT **190**.

Crytopelta MATSUMOTO **136**.

Ctenamphiura MATSUMOTO **136**.

Diopederma MATSUMOTO **136**.

†*Eucladia* with *E.* (?) *beecheri* **sp. n.** Lower Devonian America SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** pp. 276–278 pls. xxxvii–xxxviii.

†*Eucladiidae* SCHUCHERT **190**.

†*Encrinaster* SCHUCHERT **190**.

†*Encrinasteridæ* **nom. n.** for *Aspidosomatidæ* SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 241.

†*Eoluidia* SCHUCHERT **190**.

†*Eoluidiidæ* SCHUCHERT **190**.

†*Eophiura* SCHUCHERT **190**.

†*Eospondylus* SCHUCHERT **190**.

†*Eugasterella* **nom. n.**, for *Eugaster logani* SCHUCHERT Smiths. Inst. U.S. Nat. Mus. Bull. **88** p. 237.

Euryala MATSUMOTO **136**.

†*Euthemon* SCHUCHERT **190**.

†*Furcaster* SCHUCHERT **190**.

Gnathophiurida **n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 66.

Gorgonocephalidae CLARK **47**; MATSUMOTO **136**.

Gorgonocephalinae MATSUMOTO **136**.

Gorgonocephalus MATSUMOTO **136**.

†*Gregoriura spryi* CHAPMAN **24**; *G.* SCHUCHERT **190**.

Gymnolophus MATSUMOTO **136**.

Gymnophiura MATSUMOTO **136**.

†*Hallaster* SCHUCHERT **190**.

Haplophiura **gen. n.**, for *Ophiozona gymnopora* MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 76.

Hemieuryalidae with **gen. n.** *Ophioholcus* (Type *Sigsbeia sexradiata*, Koehler) CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 190–193; *Hemieuryatidae* MATSUMOTO **136**.

Hemieuryalinae **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 65–66.

Hemipholis MATSUMOTO **136**.

Homalophiura **gen. n.** (Type *Ophioglypha inornata*, Lyman CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 325.

†*Lapworthura* SCHUCHERT **190**.

†*Lapworthuridæ* SCHUCHERT **190**.

Lemophiurida **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 61.

Lutkenia MATSUMOTO **136**.

†*Lysophiurae* SCHUCHERT **190**.

Microphiura MATSUMOTO **136**.

†*Miospondylus* SCHUCHERT **190**.

Myophiuroida **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 45.

Œgophiuroida **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 45.

†*Onychaster* SCHUCHERT **190**.

†*Onychasteridae* SCHUCHERT **190**.

Ophiacantha with *O. bisquamata* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 62; *O. curima*, Gulf of Mexico; *O. lasia* Japan; *O. macroplaca* Hawaii; *O. mesembria, metallacta* W. Indies **spp. n.** CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 197, 199–202 pls. iii figs. 1–2; i figs. 5, 6–7.

Ophiacanthella MATSUMOTO **136**.

Ophiacanthidae CLARK **47**; MATSUMOTO **136**.

Ophiactininae **subfam. n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 69.

Ophiactis delicata, hemiteles, luteomaculata Torres Straits; *O. quadrispina* Philippines **spp. n.** CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 260–264 pls. x figs. 7–10; xi figs. 7–10; *O. saviguyi* CLARK **41**; *O.* MATSUMOTO **136**; POTTS **174**.

Ophiarachna MATSUMOTO **136**.

Ophiarachnella marmorata CLARK **41**; *O.* MATSUMOTO **136**.

Ophiarachninae **subfam. n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 83.

Ophiarthrum MATSUMOTO **136**.

Ophiernus MATSUMOTO **136**.

Ophioaethiops MATSUMOTO **136**.

Ophioblenna MATSUMOTO **136**.

Ophiobrachion MATSUMOTO **136**.

Ophiobyrsa MATSUMOTO **136**.

Ophiobyrsella MATSUMOTO **136**.

Ophiobyrsinae **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 50.

Ophiocamax plesiotaxis **sp. n.** Andaman Isds., CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 213 pl. iii figs. 9–10; *O.* MATSUMOTO **136**.

Ophiocampsis MATSUMOTO **136**.

Ophiocantha MATSUMOTO **136**.

Ophiocentrus MATSUMOTO **136**.

Ophioceramis MATSUMOTO **136**.

Ophiochaeta MATSUMOTO **136**.

Ophiochasma MATSUMOTO **136**.

Ophiochiton MATSUMOTO **136**.

Ophiochitonidae **fam. n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 88; *O.* CLARK **47**; MATSUMOTO **136**.

Ophiochitoninae **subfam. n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 88.

Ophiochondrus MATSUMOTO **136**.

Ophiochrysis MATSUMOTO **136**.

Ophiochytra MATSUMOTO **136**.

Ophiocirce MATSUMOTO **136**.

†*Ophiocistia* SCHUCHERT **190**.

Ophiocnemis mermorata CLARK **41**; *O.* MATSUMOTO **136**.

Ophiocnida brachiata HERDMAN **95**; *O.* MATSUMOTO **136**.

Ophiocoma parva **sp. n.** Torres Strait CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 292 pl. xiv figs. 8–9; *O.* MATSUMOTO **136**; POTTS **174**.

Ophiocomidae CLARK **47**; MATSUMOTO **136**.

Ophiocominae **subfam. n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 91, 92.

Ophiocondrella MATSUMOTO **136**.

Ophiocondrinae MATSUMOTO **136**.

Ophioconis MATSUMOTO **136**.

Ophiocopa MATSUMOTO **136**.

Ophiocormus **gen. n.** (*Ophiocanthidae*) *O. notabilis* **sp. n.** New Zealand, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 219 pl. iii figs. 11–12.

Ophiocrasis with *O. marktanneri* **sp. n.** Japan, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 90.

Ophiocrates, MATSUMOTO **136**.

Ophiocrene, MATSUMOTO **136**.

Ophiocryptus maculosus **gen. & sp. n.** California, CLARK J. Ent. Zool. Claremont Cal. **7** 1915 pp. 64–66.

Ophiocten, MATSUMOTO **136**.

Ophiocymbium, MATSUMOTO **136**.

Ophioderma, MATSUMOTO **136**.

†*Ophioderma*, CLARK & TWITCHELL **49**.

Ophiodermatidae, CLARK **47**; MATSUMOTO **136**.

Ophiodermatinae **subfam. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 83, 87.

Ophiodoris, MATSUMOTO **136**.

Ophioglypha, MATSUMOTO **136**; ZELAROVICH **222**.

†*Ophioglypha* with *O. gracilis*, *pulchra* **spp. n.** Upper Cretaceous, France, VALETTE Auxerre Bull. soc. sci. hist. nat. **1914** pp. 6–14; *O. utahensis* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U. S. Geol. Surv. **54** pp. 29, 43 pl. iii fig. 5.

Ophiogona, MATSUMOTO **136**.

Ophiogymna, MATSUMOTO **136**.

Ophiogyptis, MATSUMOTO **136**.

Ophiohyalus **gen. n.** with *O. gotoi* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 48–49.

Ophiolebes pachyphylax **sp. n.** N.E. America, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 194 pl. ii figs. 8, 9; *O.* with *O. tuberosus* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 62, 64.

Ophiolepididae, CLARK **47**; MATSUMOTO **136**.

Ophiolepidinæ **subfam. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 75, 81.

Ophiolepis superba **nom. n.** for *Ophiura annulosa*, Bl., CLARK Spol. Zeylan. **10** p. 89; *O. carinata*, MATSUMOTO **136**.

Ophioleuce, MATSUMOTO **136**.

Ophioleucidæ **fam. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 74–75, 83; CLARK **47**.

Ophiolimna, MATSUMOTO **136**.

Ophiolipus, MATSUMOTO **136**.

Ophiologimus, MATSUMOTO **136**.

Ophiolophus, MATSUMOTO **136**.

Ophiomaeris with *O. projecta* **sp. n.** Japan, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 65.

Ophiomastinæ **subfam. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 75, 76.

Ophiomastix corallicola **sp. n.** Torres Strait, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 294 pl. xvi figs. 1–2; MATSUMOTO **136**.

Ophimastus MATSUMOTO **136**.

Ophiomaza MATSUMOTO **136**; POTTS **174**.

Ophiomedea MATSUMOTO **136**.

Ophiomesa cacaotica POTTS **173**.

Ophiomidas MATSUMOTO **136**.

Ophiomisidium MATSUMOTO **136**.

Ophiomitra MATSUMOTO **136**.

Ophiomitrella MATSUMOTO **136**.

Ophiomusium monaplax, *oligoplacum* **spp. n.** W. Indies, CLARK Mem. Mus. Comp. Zool. Harvard **25** pp. 331–332 pl. xx figs. 7–10; *O.* MATSUMOTO **136**.

† ? *Ophiomusium vermiculatum*, *rugosum* **spp. n.** Upper Cretaceous France, VALETTE Auxerre Bul. soc. sci. hist. nat. **1914** pp. 18–25.

Ophiomyces MATSUMOTO **136**.

Ophiomytis MATSUMOTO **136**.

Ophiomyxa with *O. brevirima* **sp. n.** New Zealand, CLARK Mem. Mus. Comp.

Zool. Harvard **25** pp. 168–170 pl. i figs. 3, 4.

Ophiomyxidae Clark **47**; Matsumoto **136**.

Ophiomyxinae Matsumoto **136**.

Ophioncus Matsumoto **136**.

Ophionema Matsumoto **136**.

Ophionephthys octacantha **sp. n.** Torres Straits, Clark Mem. Mus. Comp. Zool. Harvard **25** p. 239 pl. ix figs. 9, 10.

Ophionereidinæ Matsumoto **136**.

Ophionereis Matsumoto **136**.

Ophionotus Matsumoto **136**.

Ophiopallas Matsumoto **136**.

Ophiopenia Matsumoto **136**.

Ophioperla Matsumoto **136**.

Ophiopeza Matsumoto **136**.

Ophiopezella Matsumoto **136**.

Ophiopholis Matsumoto **136**.

Ophiophragmus brachyactis **sp. n.** Florida, Clark Mem. Mus. Comp. Zool. Harvard **25** p. 238 pl. x figs. 13, 14; *O.* with *O. japonicus* **sp. n.** Japan, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** pp. 69, 70.

Ophiophrixus Matsumoto **136**.

Ophiophrura Matsumoto **136**.

Ophiophthirius Matsumoto **136**.

Ophiophycis Matsumoto **136**.

Ophiphyllum Matsumoto **136**.

Ophioplax with *O. lamellosa* **sp. n.** Sagami Sea, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** p. 88.

Ophiopleura Matsumoto **136**.

Ophioplinthaca Matsumoto **136**.

Ophioplinthus Matsumoto **136**.

Ophioplocus imbricatus Clark **41**; Matsumoto **136**.

Ophiopœpale Matsumoto **136**.

Ophiopora Matsumoto **136**.

Ophiopristis Matsumoto **136**.

Ophioprium **gen. n.** (Type *Ophiacantha cervicornis*, Lyman) *O. imperfectum* **sp. n.** W. Indies, Clark Mem. Mus. Comp. Zool. Harvard **25** pp. 214–215.

Ophiopsammium Matsumoto **136**.

Ophiopsila polycantha Dutch E. Indies; *O. polysticta* off Barbados **spp. n.**, Clark Mem. Mus. Comp. Zool. Harvard **25** pp. 297–298 pl. xiv figs. 3–5, 6–7; *O.*, Matsumoto **136**.

Ophiopsilinæ **subfam. n.**, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** p. 92.

Ophiopteris Matsumoto **136**.

Ophiopteron Matsumoto **136**.

Ophiopus Matsumoto **136**.

Ophiopyren Matsumoto **136**.

Ophiopyrgus Matsumoto **136**.

Ophioscalus Matsumoto **136**.

Ophioschiza Matsumoto **136**.

Ophioscolex with *O. disacanthus* **sp. n.** off W. Cuba, Clark Mem. Mus. Comp. Zool. Harvard **25** pp. 172–174 pl. ii figs. 3, 4.

Ophiosmilax **gen. n.** with *O. mirabilis* **sp. n.** Sagami Sea, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** p. 50.

Ophiosphæra Matsumoto **136**.

Ophiosteira Matsumoto **136**.

Ophiostiba **gen. n.** with *O. hidekii* **sp. n.** Sagami Sea, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** p. 47.

Ophiostigma Matsumoto **136**.

Ophiothamnus with *O. venustus* **sp. n.** Japan, Matsumoto Proc. Acad. Nat. Sci. Philad. **47** pp. 62–63.

Ophiothela caerulea Arabian Gulf; *O. hadra* Torres Straits **spp. n.**, Clark Mem. Mus. Comp. Zool. Harvard **25** pp. 283–284 pl. xiv figs. 1, 2; *O.*, Matsumoto **136**.

Ophiothrix brachyactis Florida; *O. dyscrita*, *liodisca* Torres Straits; *O. hybrida* Pacific; *O poecilodisca* Zanzibar; *O. rhabdota* Torres Straits **spp. n.** Clark Mem. Mus. Comp. Zool. Harvard **25** pp. 269–278 pls. xii figs. 1–2, 3, 5 xiii figs. 3–5; *O. fragilis* Milligan **141**; *O.* Clark **41**; Matsumoto **136**; Ziegler **224**.

Ophiothyreus Matsumoto **136**.

Ophiotjalfa vivipara **gen. & sp. n.** ? S. Greenland, Mortensen Kjöbenhavn Nath. Medd. **66** pp. 40–43; *O.*, Matsumoto **136**.

Ophiotoma Matsumoto **136**.

Ophiotrema Matsumoto **136**.

Ophiotrichidae CLARK **47**; MATSUMOTO **136**.

Ophiotrichoides MATSUMOTO **136**.

Ophiotrix ZELAROVICH **222**.

Ophiotrochus MATSUMOTO **136**.

Ophiotrypa MATSUMOTO **136**.

Ophioznoida **gen. n.** (*Ophiolepididae*) *O. picta* **sp. n.** New Zealand, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 340 pl. xviii figs. 3, 4.

Ophiozona tjalfiana **sp. n.** S. Greenland, MORTENSEN Kjöbenhavn Nath. Medd. **66** p. 38; *O.* MATSUMOTO **136**.

Ophiozonella **gen. n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 81, 82.

Ophiura brevispina GRAVE **84**; *O.* MATSUMOTO **136**.

†*Ophiurina* SCHUCHERT **190**.

†*Ophiurinidæ* SCHUCHERT **190**.

Ophiurochæta **gen. n.** for *Ophiochæta mixta* Lyman, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 83, 86.

Ophiuroconis **gen. n.** with *O. monolepis* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 83, 85.

Ophiurodon **gen. n.** for *Ophioconis grandisquama* Koehler, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 83, 86.

Ophiuroidea BEAUCHAMP & ZACHS **13**; CLARKE & WHEELER **48**; LICHTI **121**; MONTUORI **145**.

†*Ophiuroidea* SCHUCHERT **190**.

Ophiurolepis **gen. n.** for *Ophiolepis camiata* MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 80.

Ophiuropsis MATSUMOTO **136**.

†*Palæophiomyxa* SCHUCHERT **190**.

†*Palæophiura* SCHUCHERT **190**.

†*Palaeophiuridæ* SCHUCHERT **190**.

†*Palæura* SCHUCHERT **190**.

†*Palastropecten* SCHUCHERT **190**.

Paramphiura MATSUMOTO **136**.

Pectinura MATSUMOTO 136.

Phrynophiurida **n.**, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 46.

†*Protaster brisingoides* CHAPMAN **24**; *P. stellifer* PARKS **161**; *P.* SCHUCHERT **190**.

†*Protasteridæ* SCHUCHERT **190**.

†*Ptilonaster* SCHUCHERT **190**.

†*Rhopalocoma* SCHUCHERT **190**.

†*Squamaster* SCHUCHERT **190**.

†*Stegophiura* **gen. n.** with *S. vivipara* **sp. n.** Sagami Sea, MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** pp. 78–79; *S. macrarthra* **sp. n.** off Georgia, CLARK Mem. Mus. Comp. Zool. Harvard **25** p. 315 pl. xix figs. 7, 8.

Sthenocephalus MATSUMOTO **136**.

†*Stretophiuræ* SCHUCHERT **190**.

†*Stürtzaster* SCHUCHERT **190**.

†*Sturtzura leptosomoides* CHAPMAN **24**; *S.* SCHUCHERT **190**.

†*Sympterura* SCHUCHERT **190**.

†*Tæniaster* SCHUCHERT **190**.

†*Trematastér* SCHUCHERT **190**.

Trichaster MATSUMOTO **136**.

Trichasteridae CLARK **47**; MATSUMOTO **136**.

Trichasterinæ **n.** MATSUMOTO Proc. Acad. Nat. Sci. Philad. **47** p. 52.

F. CRINOIDEA.

†*Actinocrinus* [ANON.] **2**.

Antedon CLARK **36**; HERDMAN **95**.

†*Anthrocantha* with *A. eupelmatus tenuispinata* **spp. n.** Devonian Germany, SCHMIDT Centralb. Min. Stuttgart **1915** pp. 119–125.

†*Antinocrinus* PRELLER **175**.

†*Apiocrinus parkinsoni* ODLING **158**; *A.* [ANON.] **2**.

†*Archaeocrinus desideratus* BATHER **10**.

†*Botryocrinus longibrachiatus* CHAPMAN **24**.

†*Bourgueticrinus danicus* NIELSEN **154**.

Capillaster multiradiata CLARK **42**.

†*Carabocrinus vancourtlandi* FOERSTE **69**; *C.* BATHER **10**.

Cenometra herdmani CLARK **41**.

†*Cleiocrinus regius* FOERSTE **69**.

Comanthus with *C. callipeplum, luteofuscum* **spp. n.** Torres Straits, CLARK Washington D.C. Papers Dept. Mar. Biol. Carnegie Inst. Washington **8** pp. 101–103; *C.* CLARK **41**; POTTS **174**.

Comatella CLARK **42**.

Comatula CLARK **42**; POTTS **174**.

Crinoidea CLARK **26**, **27**, **28**, **29**, **30**, **33**, **34**, **35**, **37**, **38**, **39** & **43**; DEECKE **60**; FABIANI, **66**; GIRTY **78**; POTTS **173**; STREMME-TÄUBNER **204**; THOMAS **208**; WESTER **216**.

†*Crinoidea* CLARK **34**; CHAPMAN **24**; DIENER **62**; NEWTON **153**; STAUFFERT **201**.

†*Cromyocrinus* GIRTY **77**.

†*Delocrinus* GIRTY **77**.

Dichrometra CLARK **41**.

†*Eucalyptocrinus caelatus* PARKS **161**.

†*Eucrinus hyatti* **sp. n.** Mesozoic, U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 22 pl. 3a–b.

†*Eupachrynus* GIRTY **77**.

†*Gastrocrinus patulus* with **var. n.** *follmanni*, *G. brancai*, *rugosus*; *G.* ? *drevermanni* **spp. n.** Devonian Germany, SCHMIDT Wilh. Branca Eine Festschr. s. Schüler **1914** pp. 216–225 pls. iv & ivA.

†? *Gissocrinus* CHAPMAN **24**.

†*Glyptocrinus ramulosus* FOERSTE **69**.

†*Hapalocrinus victoriae* CHAPMAN **24**.

†*Helicocrinus plumosus* CHAPMAN **24**.

†*Herpetocrinus brachiatus*, *convolutus*, PARKS **161**.

Heterometra delicata **sp. n.** Torres Strait, CLARK Washington D.C. Papers Dept. Mar. Biol. Carnegie Inst. Washington **8** p. 105.—*H. reynaudii*, CLARK **41**.

†*Homocrinus cylindricus*, PARKS **161**.

†*Hybocrinus conicus*, BATHER **10**.

†*Hydreionocrinus*, GIRTY **77**.

†*Ichthyocrinus laevis*, PARKS **161**.

Iridometra nana, CLARK **42**.

†*Isocrinus* with *I. smithi*, *californicus* **spp. n.** Mesozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** pp. 21–22 pl. i figs. 1a–b 2a–c.

†*Isselicrinus insculptus* **sp. n.** Oligocene Italy, ROVERETO "Nuovi studi sulla Stratigrafia et sulla Fauna dell'Oligocene Ligure" Genoa **1914**; *I. insculptus*, COSSMANN **52**.

Lamprometra with *L. brachypecha*, *callipecha* **spp. n.** Torres Strait, CLARK Washington D.C. Papers Dept. Mar. Biol. Carnegie Inst. Washington **8** p. 104.

†*Lebetodiscus* with *L. loriformis*, *youngi*, *chapmani*, *platys*, *multibrachiatus*, *inconditus* **spp. n.** Silurian N. America, RAYMOND Ottawa Nat. **29** pp. 53–62 pl. i.

†*Lecanocrinus macropetalus* PARKS **161**.

†*Lichenocrinus* FOERSTE **69**.

†*Lyriocrinus dactylus* PARKS **161**.

†*Marsupites* BROOKS **19**; CLARK & TWITCHELL **49**.

Oligometra anisa **sp. n.** Torres Strait, CLARK Washington D.C. Papers Dept. Mar. Biol. Carnegie Inst. Washington **8** p. 105.

Pentacrinus meneghini **sp. n.** Eocene Italy, DAINELLI L'Eocene friulano Florence **1915**.—*P.* with *P. shastensis*, *tehamaensis*, *bryoni* **sp. n.** Mesozoic U.S.A., CLARK & TWITCHELL U.S. Geol. Surv. **54** p. 28 pl. iii fig. 4; vi figs. 1, 2a–b; *P.*, [ANON.] **2**; SPITZ & DYHRENFURTH **200**.

†*Perieschocrinus speciosus* PARKS **161**.

†*Phialocrinus* HUMMEL **106**.

Phrynocrinus nudus **fig.**, CLARK Smiths. Inst. U.S. Nat. Mus. Bull. **82** p. 61.

†*Porocrinus smithi* HUDSON **105**.

†*Poteriocrinus* [ANON.] **2**; GIRTY **77**; TOLMATCHOFF **210**.

†*Reteocrinus alveolatus* FOERSTE **69**.

†*Rhizocrinus maximus* **sp. n.** p. 392 Upper cretaceous Denmark, NIELSEN København Medd. Geol. **4** pp. 391–394 figgs.; *R.*, CLARK & TWITCHELL **49**.

†*Scaphiocrinus* GIRTY **77**.

†*Stephanocrinus angulatus* PARKS **161**.

Stephanometra with *S. stypacantha* **sp. n.** Torres Strait, CLARK Washington D.C. Papers Dept. Mar. Biol. Carnegie Inst. Washington **8** p. 103.

Tropiometra afra CLARK **42**; *T.*, CLARK **36** & **41**.

†*Uintacrinus* BROOKS **19**; CLARK & TWITCHELL **49**.

†*Zenometra* CLARK & TWITCHELL **49**.

G. CYSTIDEA & EDRIOASTEROIDEA.

†*Agelacrinus* and *A. billingsi* RAYMOND **177**.

†*Amygdalocystis* BATHER **10**.

†*Apiocystites elegans* PARKS **161**; *A. tecumseth* (Bill) WILLIAMS **217**.

†*Callocystites canadensis, jewetti*, PARKS **161**.

†*Caryocrinus ornatus*, PARKS **161**; REED **178**.

†*Comarocystis punctatus*, RAYMOND **177**.

†*Cyclocystoides*, BATHER **10**; FOERSTE **69**; RAYMOND **177**.

†*Echinoencrinus*, REED **178**.

†*Edrioaster buchianus*, BATHER **10**; *E. bigsbyi*, RAYMOND **177**.

†*Edrioasteridae*, BATHER **7**.

†*Edrioasteroidea*, BATHER **8** & **9**.

†*Gomphocystites tenax*, PARKS **161**.

†*Heliocrinus*, REED **178**.

†*Holocystites globosus*, PARKS **161**.

†*Lodanella mira*, WANNER **215**.

†*Malocystites murchisoni*, RAYMOND **177**.

†*Paracystis ostrogothicus* **gen.** & **sp. n.** Ordovician Sweden, SJÖBERG Géol. För. Förh. **37** pp. 171–178 pls. ii, iii [a Crinoid].

†*Pleurocystis* and *P. elegans*, RAYMOND **177**.

†*Pyrgocystis* **gen. n.** with *P. sardesoni* (Genotype) Lower Ordovician, Minnesota; *P. grayæ* Upper Ordovician, Girvan; *P. ansticei* Mid. Silurian, Shropshire **spp. n.**, BATHER Geol. Mag. **2** pp. 6–12, 49–59 pls. ii–iii.

†*Sigmacystis barrandei, emmonsi*, RAYMOND **177**.

†*Sphæronis*, REED **178**.

Steganoblastus, BATHER **10**; RAYMOND **177**.

H. BLASTOIDEA.

†*Blastoidea*, STAUFFERT **201**.

†*Blastoidocrinus carcharideus*, RAYMOND **177**.

†*Codaster canadensis*, WILLIAMS **218**.

†*Eleutherocrinus cassedayi*, WILLIAMS **218**.

†*Nucleocrinus elegans*, WILLIAMS **218**.

K. INCERTAE SEDIS.

†*Bolboporites americanus*, RAYMOND **177**.

†*Squamaster echinatus*, PARKS **161**.

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ARRANGED BY

R. W. HAROLD ROW.

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VII. BRACHIOPODA AND BRYOZOA

ARRANGED BY

F. W. EDWARDS.

(a) BRACHIOPODA

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Livonia, HEDLEY **186**.

†*Lyria, heilprini, silicata* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 58–59.

Marginella cartwrighti **sp. n.** Ceylon, SOWERBY Proc. Malac. Soc. **11** p. 213; *M. eucosmia, cosmia, turtoni, cleo, lepta, alfredensis, almo* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 37–41; *M. fraterculus, janeiroensis* **spp, n.** Off Rio de Janeiro, SMITH Brit. Ant. Exp. **2** p. 95; *M.* with *M. malina* **sp. n.** N. S. Wales; *M. maugeana* **nom. n.** for *M. gracilis*, May., HEDLEY Proc. Linn. Soc. N. S. W. **39** pp. 725–727; *M. shacklefordi* **nom. n.** for *M. eburnea*, Preston. Proc. Malac. Soc. **11** p. 312; *M. perla*, TOMLIN **405.**

†*Marginella mollitor, infecta, gregaria, impagina, posti, intensa, myrina* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 52, 55–57.

Mitra helena, ima, carifa **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 43–44; *M. volucra* N. S. Wales, *M. acromialis* off Cabbage Tree & Broughton Isds. **spp. n.** HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 730.

†*Mitra syra, myra* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 60–61; *M. uvasana* **sp. n.** Eocene N. America DICKERSON P. Calif. Ac. **5** p. 75.

Oliva with *O. peruviana* **var. n.** *subcastanea* Peru; *O. bulbosa* var. *immaculata* **nom. n.** for *O. b.* var. *fabagina*, Lk.; *O. ispidula* **varr. n.** *gratiosa* Philippines, *algida* Loc.?; *O. biplicata* **var. n.** *lapillus* California; *O. blanesi* var. *albata* **nom. n.** for *O. b. var alba*, Ford non Marr., VANATTA Nantilus **29** pp. 67–72; *O. litterata*, MAZYCK **265.**

†*Oliva posti* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 49.

Olivella inusta **sp. n.** Florida, SOWERBY Ann. Mag. Nat. Hist. **15** p. 165.

†*Olivella claytonensis* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 147; *O. eutorta, colleta* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 50.

Olividæ, JOHNSON **220** & **221.**

Scaphella, HEDLEY **186.**

†*Strigatella americana* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 61.

Voluta, HEDLEY **186.**

†*Voluta celebesensis* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 28; *V. slevini, martini* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** pp. 75, 76.

Volutoconus, HEDLEY **186.**

†*Volutospina* (*Athleta*) *huttoni* **subsp. n.** *pseudorarispina* Tertiary New Zealand, SUTER N. Z. Geol. Surv. Pal. Bull. **3** p. 31.

FASCIOLARIIDAE, TURBINELLIDAE, BUCCINIDAE, NASSIDAE, COLUMBELLIDAE, MURICIDAE & CORALLIOPHILIDAE.

Aethocola **gen. n.** for *Verconella nodosa* (Martyn), IREDALE Trans. N. Z. Inst. **47** p. 465.

†*Agasoma barkerianum clarki* **var. n.** California Miocene, ENGLISH Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 253.

Alectrion with *A. victorianus* **nom. n.** for *Buccinum fasciatum*, Lk., IREDALE Trans. N. Z. Inst. **47** p. 467.

†*Alectrion ursula, ethelinda, gardenerae* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 69–70.

†*Anachis eutheria* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 71.

Arcularia with *A. cœlata* **var. n.** *torresiana* Torres Straits; *A. particeps* **sp. n.** N. S. Wales; *A. pilata* **sp. n.** Torres Straits, HEDLEY Proc. Linn. Soc. N.S.W. **39** pp. 734–739.

Astyris caletæ, lioneli **spp. n.** Chile PRESTON in ADAMS J. Conch. Leeds **14** p. 351.

†*Astyris eleuthera, dicaria, acanthodes* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 72–73.

†*Boreotrophon fleenerensis* **sp. n.** California Pliocene, MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 191.

†*Buccinum saundersi* **sp. n.** California Pliocene, MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 183.

Bullia aepynota, lara, alfredensis, almo **spp. n.** S. Africa BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 53–54.

Cantharus unicolor, HEDLEY **186.**

†*Cantharus perrini* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 65.

†*Chrysodomus buwaldi, cierboensis, diabloensis, pabloensis* **spp. n.** Tertiary California, Clark Bull. Dept. Geol. Univ. California **8** pp. 494–496; *C. lawsoni, eurekaensis, scotiaensis, andersoni, purisimaensis, tabulatus* var. *colmaensis* **spp. & var. n.** California Pliocene, Martin Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 184–188; *C. ruckmani* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 65.

†*Clavilites klipsteini* **var. n.** *longicaudata* Tortonian Italy, Bongo Boll. Soc. geol. ital. **33** p. 411.

Colubraria alfredensis **sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 50.

Columbella misera **var. n.** *nigromaculata* Japan, Tomlin J. Conch. Leeds **14** p. 363; *C. plicatospira* **sp. n.** Japan, Sowerby Ann. Mag. Nat. Hist. **15** p. 165; *C.* (*Seminella*) *alfredensis, C.* (*Anachis*) *io* **spp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 56–57; *C.* Hedley **186.**

†*Columbella* (*Astyris*) *kirkensis* **sp. n.** Tertiary California, Clark Bull. Dept. Geol. Univ. California **8** p. 492.

Colus, Bolten, Iredale **209.**

Cominella porcata multilirata, C alfredensis **subsp. & sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 47–48.

Donovania stimpsoni **sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 33; *D. brunnea* (Don.), Iredale **209.**

Drupa, Hedley **186.**

Engina gannita **sp. n.** Torres Straits, Hedley Proc. Linn. Soc. N.S.W. **39** p. 732.

Euthria turtoni **sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 50.

†*Exilia waringi* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 68.

Fasciolaria alfredensis **sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 46.

†*Fasciolaria buwaldana* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 73; *F. petrosa* **sp. n.** Oligocene Florida, Dall Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 64.

Fusinus with *F. porticus* Panama; *centrifugus* Galapagos; *F.*(?) *orcutti* Mazatlan **spp. n.**, Dall Nautilus **29** pp. 54–57.

†*Fusus dumblei* **sp. n.** California Eocene, Dickerson Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 146; *F. willisi* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 73.

Glypteuthria acuminata **sp. n.** W. of Falkland Isds., Smith Brit. Ant. Exp. **2** p. 91.

†*Hemifusus dalli* **sp. n.** Tertiary California, Clark Bull. Dept. Geol. Univ. California **8** p. 494; *H. volutæformis* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 67; *H.* (?) *waringi* **sp. n.** California Eocene, Dickerson Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 146.

Hexaplex puniceus **sp. n.** Kermadec Isds, Oliver Trans. N. Z. Inst. **47** p. 535.

Ilyanassa obsoleta, Batcheldar **24.**

Kalydon vinosus **var. n.** *aurea* Tasmania, Hedley Proc. Linn. Soc. N.S.W. **39** pp. 746–747.

Maculotriton, Hedley **186.**

Melongena, Hedley **186.**

†*Molopophorus* (?) *howardi* **sp. n.** California Eocene, Dickerson Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 301; *M. tejonensis* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 66.

Murex alfredensis **sp. n.** S. Africa, Bartsch Smiths. Inst. U. S. Nat. Nus. Bull. **91** p. 59; *M.* with *M. permæstus* **sp. n.** Queensland, Hedley Proc. Linn. Soc. N.S.W. **39** p. 745.

†*Murex packardi* **sp. n.** Eocene N. America, Dickerson P. Calif. Ac. **5** p. 69; *M. sexangula* **sp. n.** Oligocene Florida, Dall Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 74; *M.* (*Ocinebra*) *dalli, packardi selbyensis* **spp. n.** Tertiary California, Clark Bull. Dept. Geol. Univ. California **8** pp. 501–502; *M.* (*Ocenebra*) *stazzanensis* **sp. n.** *M.* (*Hadriania*) *craticulatus* **var. n.** *ornata* Tortonian Italy, Bongo Boll. Soc. geol. ital. **33** pp. 405, 407.

Murexul **gen. n.** for *Hexaplex octogonus* (Q. & G), IREDALE Trans. N. Z. Inst. **47** p. 471.

Nassa with *N. fossae* **sp. n.** Calcutta, PRESTON Rec. Ind. Mus. **11** p. 479; *Nassa*, HEDLEY **186.**

†*Nassa moraniana* **sp. n.** California Pliocene. MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 183; *N. pabloensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 493; *N.* (*Desmoulea?*) *turrita* **var. n.** *elongata* Tortonian Italy, BONGO Boll. Soc. geol. ital. **33** p. 430.

Nodopelagia **gen. n.** Genotype *Peristernia brazieri*, Ang., HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 731.

Pentadactylus fusco-imbricatus **sp. n.** Hawaii, SOWERBY Ann. Mag. Nat. Hist. **15** p. 166.

Peristernia brazieri, HEDLEY **186.**

Pisania reticulata & *P. schoutanica* referred to *Colubraria*, HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 733.

Prosipho mundus, tuberculatus, cancellatns, congenitus **spp. n.** Antarctic, SMITH Brit. Ant. Exp. **2** pp. 70–71.

†*Pseudoliva inornata, tejonensis* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** pp. 62–63; *P. reticulata* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 783.

Purpura lapillus. COOKE **89.**

†*Purpurina indica* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost.-Ung. **26** p. 222.

Pyrene felina **sp. n.** Queensland, HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 739.

†*Rapana biconica* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 79.

†*Siphonalia bicarinata* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 66; *S. danrillensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California p. 497.

Sistrum alfredensis **sp. n.** S. Africa. BARTSCH Smiths. Inst. U. S. Nat. Mus' Bull. **91** p. 60.

Thais with *T. crassulnata* **sp. n.** Queensland, HEDLEY Proc. Linn. Soc. N.S.W. **39** pp. 747–751; *T.* (*Nucella*) with *T.* (*N.*) *lamellosa* **varr. n.** *franciscana, neptunea, cymica, sitkana T.* (*N.*) *canaliculata* **var. n.** *compressa T.* (*N.*) *emarginata* **var. n.** *projecta* W. Coast N. America, DALL U. S. Nation. Mus. Proc. **49** pp. 557–572.

†*Tritonalia scabrosa* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 77.

Tritonidea australis, HEDLEY **186.**

†*Tritonofusus fortunasensis, riversi* **spp. n.** California Pliocene, MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 189, 190.

Trophon pelseneri **sp. n.** W. of Falkland Isds., SMITH Brit. Ant. Exp. **2** p. 92.

†*Trophon* with *T. gracilis* Perry var. *pabloensis, T. dickersoni, lawsoni, ponderosum* Gabb. var. *pabloensis* **spp.** & **varr. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 498–500.

Troschelia, Mörch, IREDALE **209.**

†*Typhis siphonifera* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 77.

†*Urosalpinx hannibali* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 69.

†*Volutopsius eurekaensis* **sp. n.** California Pliocene, MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 190.

Xymene **gen. n.** Type *Fusus plebeius*, Hutt. with *X. quirindus* **nom. n.** for *Trophon paivae* Suter non Crosse, IREDALE Trans. N. Z. Inst. **47** p. 471.

Zafra with *Z. avicennia* N.S. Wales; *Z. almiranta, deblis* Queensland **spp. n.** HEDLEY Proc. Linn. Soc. N.S.W. **39** pp. 740–745. ; *Z. kermadecensis, fuscolineata*, **spp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 540.

LOTORIIDAE, CASSIDIDAE, DOLIIDAE, CYPRÆIDAE, STROMBIDAE, APORRHAIDAE AND STRUTHIOLARIIDAE.

Amphiperas smithi **sp. n.** S. Africa, BARTSCH Smiths. Inst. U.S. Nat. Mus. Bull. **81** p. 96.

†*Anchura englishi, gabbi* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 144.

Aporrhais pes-pelicani, RETZIUS **332.**

†*Aporrhais trichinopolitensis. A.* (*Arrhoges*) *indica* **spp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** pp. 226–227.

†*Argobuccinum arnoldi, scotiaensis* **spp. n.** California, Pliocene. MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 192.

†*Bursa trampasensis* **sp. n.** Tertiary California CLARK Bull. Dept. Geol. Univ. California **8** p. 492.

Caducifer decapitata HEDLEY **186**.

Charonia poecilostoma **sp. n.** S. Africa SMITH Proc. Malac. Soc. **11** p. 285.

Cymatium australasiae HEDLEY **186**.

Cypraea lamarckii **var. n.** *phyllidis* Aden, SHAW Proc. Malac. Soc. **11** p. 210: *C. variolaria* **var. n.** *amiges* Hawaiian Isds. MELVILL & STANDEN J. Conch. Leeds **14** p. 323.

†*Cypraea ballista* **sp. n.** Oligocene Florida DALL Smiths Inst. U.S. Nat. Mus. Bull. **90** p. 85.

Erato voluta, Mont. Iredale 209.

Eugyrina geminifera lepta **subsp. n.** S. Africa, BARTSCH Smiths Inst. U.S. Nat. Mus, Bull. **91** p. 93.

†*Ficus rodeoensis* **sp. n.** California, Miocene, ENGLISH Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 246.

†*Gyrineum elsmerense* **sp. n.** California Pliocene, ENGLISH Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 215.

Lotorium (*Cymatium*) *kiiensis* **sp. n.** Japan, SOWERBY Ann. Mag. Nat. Hist. **15** p. 165.

Nyctilochus alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 94.

†*Nyctilochus kewi* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 64.

†*Ovula martini* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 145.

Ranella leucostoma Lk. = *Charonia australasiana*, Perry SMITH. **373**.

†*Rimella indica, trichinopolitensis* **spp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** pp. 229–230.

†*Rostellaria turonica* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 229.

†*Seraphs* (?) *thompsoni* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 144.

Strombus bituberculatus, REINKE **331**.

†*Strombus liocyclus* **sp. n.** Oligocene Florida DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 88.

†*Struthiolaria parva* **sp. n.** Tertiary New Zealand, SUTER N.Z. Geol. Surv. Pal. Bull. **3** p. 7.

†*Tritonium* **spp. n.** *buwaldi, martinezensis* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 145–146.

Trivia jouensis, (Pennant), IREDALE **209**.

CERITHIIDAE, PLANAXIDAE, TRICHOTROPIDIDAE, VERMETIDAE, TURRITELLIDAE AND CÆCIDAE.

Bittium, HEDLEY **186**.

†?*Bittium pabloensis, B. trampasensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 489; *B.* (*priscum var*?) *sora* **var. n.** *B. adela* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 89.

Caecum solitarium **sp. n.** Kermadec Isds., OLIVER Trans N. Z. Inst. **47** p. 523.

Callostracum, SMITH **374**.

Cerithiidae, IREDALE **209**.

Cerithiopsis (*Cerithiopsis*) *alfredensis, C. erna, C.* (*C.*) *nina, nisaba, saba,* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 109–112.

†*Cerithiopsis silicata* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 93; *C. turneri, bolingerensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 490.

Cerithium tomlini **sp. n.** Queensland, HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 717.

†*Cerithium archiaci* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 30; *C. butterworthi* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 301; *C. plectrum* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 90; *C. rodeoensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 491; *C.* (*Sandbergeria*) *postlallierianum* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 225.

Chasteria **gen. n.** (Type *C. danielseni* Friele = *Cerithium procerum*, Jeff), IREDALE Proc. Malac. Soc. **11** p. 334.

Eglisia with operculum of *E. spirata* **fig.**, SMITH Ann. Mag. Nat. Hist. **15** pp. 361–365.

Eumeta bia **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 116; *E. arctica*, (Mörch), IREDALE **209**.

Mesalia with operculum of *M. brevialis* **fig.**, SMITH Ann. Mag. Nat. Hist. **15** pp. 366–372, 277.

Plesiotrochus with *P. ceylonicus* **sp. n.** Ceylon, SOWERBY Proc. Malac. Soc. **11** pp. 215–216.

Seila alfredensis, africana, smithi **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 113–115.

†*Seila huttoni* **nom. mut.**, for *Bittium cinctum*, Hutt., SUTER N. Z. Geol. Surv. Palaeont. Bull. **3** p. 6.

Sinistroseila **gen. n.** Type *Triforis incisus* Pease, OLIVER Trans. N. Z. Inst. **47** p. 522.

Sundaya exquisita **gen.** and **sp. n.** Kermadec Isds., OLIVER Trans. N.Z. Inst. **47** p. 522.

Tachyrhynchus with *T. lacteola* **fig.** SMITH Ann. Mag. Nat. Hist. **15** pp. 373–377.

Trichotropis planispira **sp. n.** Antarctic, SMITH Brit. Ant. Exp. **2** p. 67.

†*Triforis* [vide etiam *Triphoris*] *washingtoniana* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 63.

Triphoris [vide etiam *Triforis*] *atea, helena, smithi, elsa, mildà, oreada, africana, capensis, madria, sabita, nina, ima* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U.S. Nat. Mus. Bull. **91** pp. 98–108.

Turritella stimpsoni **sp. n.** S. Africa, BARTSCH Smiths. Inst. U.S. Nat. Mus. Bull. **91** p. 118.

†*Turritella clarki* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 142; *T. krooni* **sp. n.** Cretaceous Célèbes, DOLLFUSS Paléont. de Célèbes p. 7; *T. maccreadyi* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 783; *T.* (*tampae var.* ?) *mediocostricta, systoliata, litharia, atacta* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U.S. Nat. Mus. Bull. **90** pp. 98–100; *T. uvasana* **varr. n.** *bicarinata tricarinata* Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 58.

Turritellopsis SMITH **374**.

MELANIIDAE, PSEUDOMELANIIDAE, PLEUROCERIDAE, LITTORINIDAE & FOSSARIDAE.

Chilkaia imitatrix **gen.** and **sp. n.** (*Fossaridae*) E. India PRESTON Rec. Ind. Mus. **11** p. 291.

Cithna africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U.S. Nat. Mus. Bull. **91** p. 120.

†*Fossarus odiensis* **sp. n.** Cretaceous S. India SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 216.

†*Holopea media* **sp. n.** Palaeozoic Canada PARKS Trans. Can. Inst. **11** p. 18.

Io ADAMS **1**.

Lacuna pallidula **var. n.** *imperforata* Guernsey, MARSHALL J. Conch. Leeds. **14** p. 328.

†*Lacuna mariana* **sp. n.** Tertiary CERULLI-IRELLI Paleontogr. Ital. **20** p. 186; *L. precursor* **sp. n.** Oligocene Florida DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 94.

Litornia [vide etiam *Littorina*] *litore, rudis* BATCHELDAR **24**.

†*Litorina trichinopolitensis* **sp. n.** Cretaceous S. India SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 221.

Littorina [vide etiam *Litorina*] *africana, tryphena* **subsp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 120; *L. eudeli* **sp. n.** Pondicherry SOWERBY Ann. Mag. Nat. Hist. **15** p. 167; *L. obtusata* with **varr. n.** *lutea, castanea, balteata, ambigua, ornata, lineolata, tessellata*, DAUTZENBERG & FISCHER J. conchyliol. Paris **62** pp. 87–110; *L. obtusata littoralis* with **varr. n.** *minima, pachychila, olivacea, alternata, inversicolor, inversicolor-reticulata, rhabdota, ziczac* and **monstr. n.** *contabulatum, carinatum, exsertum, umbilicatum*, DAUTZENBERG & FISCHER J. conchyliol. Paris **62** pp. 111–128; *L. littorea* COOKE **87**; *L.* SCHEPMAN **354**.

†*Littorina pittsburgensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 484.

Melania with *M.* (*Tiaropsis*) *rudis* **var. n.** *cylindrica* Ceram SCHEPMAN

Amsterdam Bijdr. Dierk. Af. **20** pp. 23–27.

†*Melania packardi, vaderensis* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 59.

Melanopsis diabetensis **sp. n.** Morocco PALLARY Bull. Mus. Paris **1915** p. 28.

†*Melanopsis* with *M. nodosa* **varr. n.** *ovoidalis, anodifera, transiens* Tertiary, CERULLI-IRELLI Palontogr. Ital. **20** pp. 183–185.

Paludomus rotungensis **sp. n.** Upper Rotung PRESTON Rec. Ind. Mus. **8** p. 539; *Paludomus zeylanica* Lea **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** p. 46; *P.* (*Philopotamis*) *trifasciata* Reeve **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** p. 54.

Tiara (*Pachychilus*) *limborgi* Han., **fig.** PRESTON Fauna Brit. Ind. Moll. Gast. Pel. **1915** p. 29.

Tiarinae CONNOLLY **86**.

SOLARIIDAE, SKENEIIDAE, LITIOPIDAE, RISSOIDAE, HYDROBIIDAE, VIVIPARIDAE, VALVATIDAE, AMPULLARIIDAE, & ASSIMINEIDAE.

Alabina alfredensis, africana **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 121.

Alvania cruenta **sp. n.** Spitzbergen, ODHNER Stockholm Vet.-Ak. Handl. **54** No. **1** p. 167; *A. nemo, alfredensis, almo, ima* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 127–129.

†*Amnicola adesta* **sp. n.** Oligocene Florida DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 102.

Amphithalamus sundayensis **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 521; *A. turtoni, africanus* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 126–127.

Ampullaria megastoma DOELLO-JURADO **117**.

Anculosa arkansensis **sp. n.** Arkansas, HINKLEY Washington U. S. Nation. Mus. Proc. **49** p. 587.

Assiminea capensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 125.

†*Assiminia aldra* **sp. n.** Oligocene Florida, DALL Smiths Inst. U. S. Nat. Mus. Bull. **90** p. 101.

Barleeia smithi **sp. n.** S. Africa BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 134.

Bithynia dibrugarhensis **sp. n.** N. E. Assam, PRESTON Rec. Ind. Mus. **8** p. 540.

Blanfordia PILSBRY **310**.

Campeloma with *C. lewisii* **nom. n.** for *Melantho coarctata* Walker Nautilus **28** pp. 125–127; *C. lewisii* BAKER **14**.

†*Campeloma calamodontis* **sp. n.** Eocene New Mexico, COCKERELL Bull. Amer. Mus. Nat. Hist. **34** p. 120.

Cerostraca iredalei **gen. & sp. n.** (*Rissoidae*) Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 521.

Dardanula **gen. n.** (*Rissoidae*) IREDALE Trans. N. Z. Inst. **47** p. 452.

Diala africana, capensis, almo **spp. n.** S. Africa BARTSCH Smiths. Inst U. S. Nat. Mus. Bull. **91** pp. 122–123.

Epigrus insularis, gracilis **spp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** pp. 520–521.

Estea **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 451; *E. roseola* **nom. n.** for *Rissoa rosea*, Hutton IREDALE Trans. N. Z. Inst. **47** p. 453.

†*Euomphalus bullæformis* **sp. n.** Bornholm Silurian, HADDING Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 4 p. 27; *E. rotundus, minor*, **spp. n.** Palaeozoic Canada, PARKS Trans. Can. Inst. **11** p. 61.

Fenella almo **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 134.

Haurakia **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 449; *H. Kermadecensis* **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 518.

Heliacus africanus **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 123.

Iravadia princeps **sp. n.** Calcutta, PRESTON Rec. Ind. Mus. **11** p. 480.

Isselia chiltoni **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 520.

Katyama nosophora **gen. & sp. n.** Japan, ROBSON Brit. Med. Journal **1915** pp. 201–203; *Katyama* PILSBRY **310**.

Lironoba **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 450.

Litiopa copiosa **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 292.

Littorinida limosa, lioneli, faminensis, angustiarum Straits of Magellan, PRESTON IN ADAMS J. Conch. Leeds **14** pp. 351–352.

Merelina **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 449.

Microsetia gisna, halia, helga, irma **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 123–133.

Nodulus africanus **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 125.

Notosetia **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 452; *N. electra* **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 519; *N. subflavescens* **nom. n.** for *Rissoa atomus*, Suter, IREDALE Trans. N. Z. Inst. **47** p. 453.

Nozeba **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 452.

Obtortio lutosus **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 716.

Pachydrobia (*Delavaya*) *pallidula* **sp. n.** Indo-China, BAVAY & DAUTZENBERG J. Conchyliol. Paris **62** p. 149.

Paludestrina salsa, LONG **253**.

Petterdiana brazieri, HEDLEY **186**.

†*Pleuronotus ussiensis* **sp. n.** Devonian Siberia, TOLMATCHOFF Petrograd Trans. sect. Geol. Cab. de sa Majesté **8** pp. 198, 217.

Pyrgulopsis ozarkensis **sp. n.** Arkansas, HINKLEY Washington U. S. Nation. Mus. Proc. **49** p. 588.

Rissoella, Gray, IREDALE **209**.

Rissoia demissa, regularis **spp. n.** Antarctic, SMITH Brit. Ant. Exp. **2** p. 65.

†*Rissoia* with *R. vitrea* **var. n.** *serrata*, *R.* (*Hyala*) *subglobulosa*, *R.* (*Cingulina*) *ventricosella* **spp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 189–204.

Rissoidae, IREDALE **209**.

Rissoina calia, eucosmia **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 130–131; *R. miltozona* **sp. n.** Lifu, TOMLIN J. Conch. Leeds **14** p. 321; *R.* with *R. excolpa, gisna, favilla, mazatlanica, helena, io, dina, peninsularis, adamsi, townsendi, barthelowi, lapazana, histia, burragei, nereina, effusa, californica, mexicana, cleo, dalli, coronadensis, signae* **spp. n.** W. Coast of N. & C. America, BARTSCH Proc. U. S. Nat. Mus. **49** pp. 33–62.

†*Rissoina pleistocenica* **sp. n.** Pleistocene California, BARTSCH Proc. U. S. Nat. Mus. **49** p. 54; *R. supralaevigata* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 101.

Sabanaea pyrrha, thalia **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 125–126.

Skenea Fleming, IREDALE **211**.

Skeneopsis **gen. n.** (Type *Turbo planorbis*), IREDALE Proc. Malac. Soc. **11** 1915 p. 292.

Somatogyrus crassilabris **sp. n.** Arkansas, HINKLEY Washington U. S. Nation. Mus. Proc. **49** p. 558; *S.* with *S. wheeleri, amnicoloides, crassilabris* **spp. n.** Arkansas, WALKER Nautilus **29** pp. 51–53; *Somatogyrus*, WALKER **433**.

Stenothyra trigona, obesula **spp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 293.

Subonoba **gen. n.** (*Rissoidae*), IREDALE Trans. N. Z. Inst. **47** p. 450.

Tropidorissoia **gen. n.** (*Rissoidae*) *T. taphrodes* **sp. n.** São Thomé, TOMLIN & SHACKLEFORD J. Conch. Leeds **14** p. 307.

Valvata tricarinata **varr. n.** *infracarinata, basalis* N.E. United States, VANATTA Nautilus **28** pp. 104–105.

†*Valvata gregorii* **sp. n.** Mesozoic Arizona, ROBINSON Amer. J. Sci. **40** pp. 649–650.

Viviparus malleatus, JOHNSON **223**.

Zebina cooperi **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 520.

CYCLOPHORIDAE, CYCLOSTOMATIDAE & TRUNCATELLIDAE.

Acmea Hartm. IREDALE **209**.

Cyclophorus aborensis, C. (*Glossostylus*) *bapuensis, sidiensis, koboensis, oakesi* **spp. n.** Abor Country, GODWIN-AUSTEN Rec. Ind. Mus. **8** pp. 494–495, 502.

Cyclotus, SCHEPMAN **354**.

Diplopoma torrei **sp. n.** Cuba, RAMSDEN Nautilus **28** p. 134.

Diplommatina perobesa **sp. n.** Upper Rotung, PRESTON Rec. Ind. Mus. **8** p. 540.

Leptopoma with *L. diplochilus* **varr.** [**n.** ?] *typica, maculata, unicolor* Malay Archipelago, SCHEPMAN Amsterdam Bijdr. Dierk. Af. **20** pp. 28–30.

†*Pomatias saueri, salomoni* **spp. n.** Pleistocene Bavaria, GEYER Nachr Bl. D. Malak. Ges. **47** pp. 65, 67.

Pterocyclos aborensis, miriensis, spiramentum, brahmakundensis **spp. n.** *P. magnus* Abor Country, GODWIN-AUSTEN Rec. Ind. Mus. **8** pp. 498-500; *P. prestoni*, B. & D. = *P. cochinchinensis*, Pfr. FULTON **149**.

Rhytidopoma tollini **sp. n.** Cuba, RAMSDEN Nautilus **28** p. 135.

Schistoloma with *S.* (*Schistoloma*) *alta mindoroensis, romblonensis, sibuyanensis pygmaea, S.* (*S.*) *mcgregori tablasensis, webbi, S.* (*Holoma*) *quadrasi coronensis* **subspp. n.** Philippines, BARTSCH. Proc. U. S. Nat. Mus. **49** pp. 198–204.

Spiraculum oakesi, kempi, planum, ? *S. luyorensis, S. minimum* **spp. n.** *S. nevilli* Abor Country; *S. putaoensis* **sp. n.** Upper Burma, GODWIN-AUSTEN Rec. Ind. Mus. **8** pp. 496–497, 500–501.

CAPULIDAE, XENOPHORIDAE, ADEOBIIDAE, LAMELLARIIDAE, NATICIDAE AND JANTHINIDAE.

†*Amauropsis martinezensis* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 142.

†*Brocchia laevis* **varr. n.** *pileata, lunulata* Tertiary *B. l.* var. *contii* **nom. mut.** for *Pileopsis depressa*, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 207-209.

Calyptraea sinensis, GIESE **157**.

†*Calyptraea diabloensis, martini* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 485.

Capulus hungaricus, GIESE **157**.

Crepiduda fornicata [ANON] **9**; ORTON **295** & **296**; ROBSON, **339**; *C. unguiformis*, GIESE **157**.

†*Crepidula pabloensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 485.

†*Euspira variabilis*, NEWTON **284**.

Janthina nitens. BALDASSERONI **18**.

†*Lunatia cowlitzensis* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 57.

Natica stimpsoni, alfredensis, africana, nemo, saldontiana **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 137-140; *N.* (*Polinices*) *tenuicula* **sp. n.** Japan, SOWERBY Ann. Mag. Nat. Hist. **15** p. 166.

†*Natica pinyonensis* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 302; *N. pseudomutabilis* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 34; *N.* (*Amauropsis*) *ariyalurensis* **sp. n.** Cretaceous S. India, SPENGLER Beitr Pal. Geol. Ost. Ung. **26** p 218; *N.* (*Euspira*) *diabloensis, kirkensis,* (*Neverita*) *arnoldi, pabloensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 486-488; *N.* (*Gyrodes*) *lineata* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** pl. xiii.

Neoconcha insignis **sp. n.** Antarctic, SMITH Brit. Ant. Exp. **2** p. 68.

†*Neverita weaveri* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 57.

†*Orthonychia canavarii* **sp. n.** Palæozoic Austria, GORTANI Pal. Ital. **21** p. 160.

†*Platyceras taramellii* **sp. n.** Palæozoic Austria, GORTANI Pal. Ital. **21** p. 163; *P. yulei* **sp. n.** Ordovician Shan States, REED Pal. Ind. **6** (1) p. 20; *P. nasutum*, GIRTY **159**.

Polinices ephebus **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 720.

Sigapatella hedleyi **sp. n.** New Zealand, SMITH Brit. Ant. Exp. **2** p. 84.

†*Sigaretus cenomanensis* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 217.

†*Sinum imperforatum* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 109.

†*Strophostylus* with *S. splendens* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 124-125.

Vanikoro africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 140.

SCALIDAE.

†*Aclis supranitida* **varr. n.** *planata, interposita* Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 243-244.

Acrilla thalia **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 64.

Epitonium africanum, aglaia **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 62-63; *E. hamatulae* **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 294.

Graphis africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 64; *Graphis*, Jeff., IREDALE **209.**

†*Scala* with *S.* (*Spiniscala*) *spinifera* **var. n.** *affinis*, *S.* (*S.*) *frondosa* **var. n.** *turriculata*, *S.* (*S.*) *muricata* **varr. n.** *elongatula. reflexespinosa*, *S.* (*Gyroscala*) *pseudoscalaris* **varr. n.** *spinosella*, *ventricosella*, *pseudocommutata*, *S.* (*G.*) *intricata*, *mariana* **spp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 221-242.

EULIMIDAE AND PYRAMIDELLIDAE.

Burkillia **gen. n.** (Type *Odostomia fenestrata*, Jeff.), IREDALE Proc. Malac. Soc. **11** p. 337.

Chrysallida (*Mormula*) with *C.* (*M.*) *humilis chilkaënsis*, *C.* (*M.*) *ecclesia*, *nadiensis* **spp.** & **subsp. n.** E. India, PRESTON Rec. Ind. Mus. **11** pp. 294-296.

Cithna wallacei **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 533.

Cremula **gen. n.** (Type *Turbonilla clavula*, Lovén), IREDALE Proc. Malac. Soc. **11** p. 336.

Eulima exulata, solitaria **spp. n** Antarctic, SMITH Brit. Ant. Exp. **2** p. 64; *Eulima*, JONKER **228.**

†*Eulima* with *E. bipartita*, *E.* (*Subularia*) *distincta* & var. *abbreviata* **spp.** & **var. n.** Tertiary CERULLI-IRELLI Paleontogr. Ital. **20** pp. 244-249; *E. bowdichi* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 82.

Eulimella macandrewi, (Forbes), IREDALE **209.**

Evalea, A. Ad., IREDALE **209.**

Hinemoa punicea **gen.** & **sp. n.** (*Pyramidellidae*) Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 531.

Leiostraca diauges **sp. n.** São Thomé, TOMLIN & SHACKLEFORD J. Conch. Leeds. **14** p. 308.

Melanella carifa, icafra, alfredensis, iota, farica, thalia, asser, acrifa, cifara, irafca **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 65-69; *M. kermadecensis, perplexa, spinosa* **spp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 532.

Menestho truncatula **sp. n.** Spitzbergen, ODHNER Stockholm Vet. Ak. Handl. **54** No. 1 p. 175.

Mucronalia exquisita **sp. n.** Ceylon, SOWERBY Proc. Malac. Soc. **11** p. 214.

Niso alfredensis **sp. n.** S. Africa. BARTSCH Smiths. Inst. U. S. Nat. Mus, Bull. **91** p. 70.

†*Niso marianum* **sp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** p. 251.

Noemiamea, IREDALE **209.**

†*Odontostomia* with *O. lineolata* **sp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 252-256.

Odostomia pithus **sp. n.** São Thomé, TOMLIN & SHACKLEFORD J. Conch. Leeds **14** p. 308; *O.* (*Odostomella*) *farica*, (*Egilina*) *turtoni*, (*Pyrgulina*) *africa*, (*Miralda*) *agana*, (*Menestho*) *carifa*, *rifaca*, *ficara*, (*Evalia*) *aethra*, *gea*, *cifara*, *acrifa*, (*Odostomia*) *irafca*, *icafra* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 85-92.

†*Parthenina* with *P. indistincta* **var. n.** *transiens*, *P. nassoides*, *semiornata*, *cylindrata* **spp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 259-266.

Pyramidella (*Orinella*) *africana*) *alfredensis*, *ima*, *P.* (*Actaeopyramis*, *norna*, *P.* (*Syrnola*) *pyrrha* **spp. n.** *P.* (*S.*) *aganea* **nom. n.** for *Eulimella nivea*, Smith *P.* (*S.*) *tarpeia*, *hera* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 71-74.

†*Pyramidella plicosa* **var. n.** *lineolata*. Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** p. 252.

Pyramidellidae, IREDALE **209.**

Pyrgisculus, Monterosato, IREDALE **209.**

Pyrgulina insularis **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 531.

Raoulostraca inexpectata **gen.** & **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 532.

Scalenostoma suteri **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 533.

Stilifer, JONKER **228**.

Strombiformis, IREDALE **211**.

Subeulima magnifica **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 70.

Subularia perspicua **sp. n.** Kermadec Isds. OLIVER Trans. N. Z. Inst. **47** p. 533.

Syrnola thomensis **sp. n.** São Thomé, TOMLIN & SHACKLEFORD J. Couch. Leeds **14** p. 308.

Thyca, JONKER **228**.

Turbonilla oceanica, sculpturata **spp. n.** Kermadec Isds. OLIVER Trans. N. Z. Inst. **47** p. 530; *T. pyrgidium* **sp. n.** São Thomé, TOMLIN & SHACKLEFORD J. Conch. Leeds **14** p. 309; *T.* (*Ptycheulimella*) *erna*, (*Pselliogyra*) *adaba* **spp. n.** *T.* (*Strioturbonilla*) *secura* **nom. n.** for *Turbonilla obeliscus*, Gld. *T.* (*Pyrgolampros*) *angea*, (*Pyrgiscus*) *helena, atossa, tritonia, zenobia, maia, tefunta, apsa*, (*Cingulina*) *aglaia, callista*, (*Careliopsis*) *carifa*, (*Mormula*) *cifara* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 75–84; *T. phrikalea*, TOMLIN **406**.

†*Turbonilla* with *T. obliquata* **var. n.** *transiens*, *T. rufa* **varr. n.** *depressecostata, ventricosa*, *T.* (*Pyrgostylus*) *interposita* **sp. n.** Tertiary, CERULLI-IRELLI Paleontogr. Ital. **20** pp. 267–277; *T.* (*Ptycheulimella*) *ethellina* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 84.

Zastoma **gen. n.** (Type *Brachystomia rissoides*, (Hanley), IREDALE Proc. Malac. Soc. **11** p. 336.

HELICINIDAE.

†*Helicina posti* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 113.

Helicinidae, FULTON, **149**; **150**.

NERITIDAE, NERITOPSIDAE, TURBINIDAE, AND CYCLOSTREMATIDAE.

Alcyna exigua, HEDLEY **186**.

†*Amberleya di Stefanoi* **sp. n.** Jura Italy, ONETTI Rev. ital. paleont. Parma **21** p. 63.

Argalista **gen. n.** Type *Cyclostrema fluctuata*, Hutt., IREDALE Trans. N. Z. Inst. **47** p. 445.

†*Astralium raymondi* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 480; *A.* (*Bolma*) *affine* **var. n.** *basituberculata*. Turonian Italy, BONGO Boll. Soc. geol. ital. **33** p. 466.

Calliostoma eucosmia, africana **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 161–162.

†*Calliostoma bicarinatum, splendens*, Cpr. var. *diabloensis* **sp. & var. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 481–482; *C. tampicum* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 111.

Cantharidus with *C. oliveri* **nom. n.** for *C. pupillus*, IREDALE Trans. N. Z. Inst. **47** p. 438.

Caporbis **gen. n.** (*Cyclostrematidae*) *C. africana* **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. p. 170.

Charisma **gen. n.** Genotype *C. compacta* **sp. n.** Port Macquarie, HEDLEY Proc. Linn. Soc. N. S. W. **39** pp. 711–712.

Clanculus alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 150.

Cyclostrema alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 169; *C.* (*Tubiola*) *innocens* **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 296.

Cyclostremella farica, africana **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 169–170.

Cynisca gloriosa, alfredensis, africana **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 163–165.

Discopsis alfredensis, africana, turtoni **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 172–173.

Elachorbis **gen. n.** Type *Cyclostrema tatei*, Ang. IREDALE Trans. N. Z. Inst. **47** p. 443.

Gibbula thalia, hera, aglaia, medusa, rifaca **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 157–160; *G. strangei*, HEDLEY **186**; *G. dacostana*, HEDLEY **186**.

Leptogyra africana **sp. n.** S. Africa, BARTSCH Smiths, Inst. U. S. Nat. Mus. Bull. **91** p. 173.

Leptothyra africana, carminea, alfredensis **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 147–149.

†*Leptothyra danvillensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 481.

Liotella **gen. n.** (*Liotiidae*), IREDALE Trans. N. Z. Inst. **47** p. 442.

Liotia botanica **sp. n.** N. S. Wales., HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 710.

Lissotesta **gen. n.** Type *Cyclostrema micra*, T. Wds., IREDALE Trans. N. Z. Inst. **47** p. 442.

Margarites gemma **sp. n.** Antarctic *M. iris* W. of Falkland Isds., SMITH Brit. Ant. Exp. **2** pp. 62, 91.

Minolia liricincta **sp. n.** Bitter Lakes Suez, SOWERBY Ann. Mag. Nat. Hist. **15** p. 167.

†*Nerita* (?) *biangulata* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 141; *N. cowlitzensis* **sp. n.** Eocene N. America DICKERSON P. Calif. Ac. **5** p. 58.

Neritina fluviatilis, S. **346**; *Neritina*, SCHEPMAN **354**.

†*Neritina martini* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 59; *N. serratiliniformis* **sp. n.** Pleistocene Bavaria, GEYER NachrBl. D. Malak. Ges. **47** p. 66.

Phasianella africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 145.

Philorene, **gen. n.** with *P. texturata* **sp. n.** Kermadec Isd., OLIVER Trans. N. Z. Inst. **47** p. 517.

Pondorbis **gen. n.** (*Cyclostrematidae*) *P. alfredensis* **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 171.

Rhodinoliotia **gen. n.** (*Liotiidæ*), TOMLIN J. Conch. Leeds **14** p. 267.

Septaria, SCHEPMAN **354**.

Solariellopsis glyptus, HEDLEY **186**.

Tallorbis ampullus, HEDLEY **186**.

†*Tegula* (*Chlorostoma*) *danvillensis, nashi* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 482.

Teinostoma alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 165.

Thorista **nom. n.** for *Anthora*, IREDALE Trans. N. Z. Inst. **47** p. 436.

Thoristorella **gen. n.** (*Trochidae*), IREDALE Trans. N. Z. Inst. **47** p. 436.

†*Trochus* (?) *volaianus* **sp n.** Ordovician Austria, VINASSA DE REGNY Pal. Ital. **21** p. 113.

Vitriuella rifaca, cifara, ficara, facira, V. (*Docomphala*) *arifca* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 167–168.

Zalipais **gen. n.** for *Cyclostrema lissum* Suter, IREDALE Trans. N. Z. Inst. **47** p. 442.

STOMATIIDAE, HALIOTIDAE, PLEUROTOMARIIDAE BELLEROPHONTIDAE AND FISSURELLIDAE.

†*Bellerophon buccinatus* **sp. n.** Sweden Silurian, HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 36; *B. taramelli* **sp. n.** Devon Austria, GORTANI Boll. Com. Geol. Ital. **43** p. 250; *B. striatus*, KIROHNER **237**.

Diodora Gray, IREDALE **209**.

Emarginula, HEDLEY **186**.

†*Fissurella* (?) *behri* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 141; *F.* (*Cremides*) *ceryx* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 115.

Fissuridea bollonsi **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 515.

Haliotis alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 175; *H.* (*Padollus*) *pourtalesii* & *H.* (*P.*) *dalli* **nom. n.** for *H. pourtalesii* ? Dall, HENDERSON Proc. U. S. Nat. Mus. **48** pp. 660–661.

Hemitoma, HEDLEY **186**.

†*Hormotoma acuminata* **sp. n.** Palæozoic Canada, PARKS Trans. Can. Inst. **11** p. 17.

Lucapina, DALL **99**.

Montfortia, HEDLEY **186**.

Montfortula **gen. n.**, IREDALE Trans. N. Z. Inst. **47** p. 432.

†*Murchisonia* (*Goniostropha*) *vinassai* **sp. n.** Devon Austria, GORTANI Boll. Com. Geol. Ital. **43** p. 251.

†*Pleurotomaria* with *P. arkansana* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 113–114; *P.* (*?*) *trichinopolitensis* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 215.

Puncturella africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 177.

Schismope pacificus **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 514.

ACMAEIDAE AND PATELLIDAE.

Acmaea with *A. mufria* **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** pp. 712–713.

†*Aemaea martinezensis* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 140.

Ansates, Sowerby, IREDALE **209**.

Atalacmea **gen. n.** (*Acmaeidæ*), IREDALE Trans. N. Z. Inst. **47** p. 427.

Cellana with *C. craticulatus prolexus*, *hedleyi corrugata* & *C. vulcanicus*, *scopulinus* **subspp.** & **spp. n.** Kermadec Isds., IREDALE Trans. N. Z. Inst. **47** pp. 311–314; *C.* with *C. radians* var *perana* **nom. n.** for *argentea* Q. & G., IREDALE Trans. N. Z. Inst. **47** pp. 430–433.

Helcioniscus variegatus, HEDLEY **186**.

Notoacmea **gen. n.** (*Acmaeidæ*) with *N. suteri* **nom. n.** for *Acmaea roseoradiata* Suter, IREDALE Trans. N. Z. Inst. **47** p. 428.

Patella, HEDLEY **186**.

Radiacmea **gen. n.** (*Acmaeidæ*), IREDALE Trans. N. Z. Inst. **47** p. 427.

Tectura, Gray, IREDALE **209**.

INCERTAE SEDIS.

†*Archinacella dubiosa* **sp. n.** Sweden Silurian, HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 35.

†*Callonema blanfordi* **sp. n.** Silurian Shan States, REED Pal. Ind. **6** (1) p. 79.

Duplicaria ballina **sp. n.** Trial Bay, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 730.

†*Eotomaria* (*?*) *hopkinsi* **sp. n.** Palæozoic Canada, PARKS Trans. Can. Inst. **11** p. 60.

†*Liospira stevensoni* **sp. n.** Palæozoic Canada, PARKS Trans. Can. Inst. **11** p. 68.

†*Maclurea subovata* **nom. prov.** *acuta* **sp. n.** Palæozoic Canada, PARKS Trans. Can. Inst. **11** pp. 19–21.

Miralda austro-pacifica **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 531.

Mollusque énigmatique commensal, HERPIN **193**.

†*Pycnomphalus colemani* **sp. n.** Palæozoic Canada, PARKS Trans. Can. Inst. **11** p. 65.

Opisthobranchia (INCLUDING PTEROPODA AND HETEROPODA).

†*Actaeon sublaevigatus* **sp. n.** Cretaceous S. India, SPENGLER Beitr. Pal. Geol. Ost. Ung. **26** p. 234.

Actaeonidae, VON JHERING **217**.

Acteocina smithi **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 4.

†*Acteocina squarrosa* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 33.

†*Acteon tampæ* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 32.

Aeolididae VON JHERING **217**.

Aeolis papillosa, RETZIUS **332**.

Amphorina alberti, VAYSSIÈRE **421**.

Brocktonia **gen. n.** (Type *Cryptaxis cerebripunctatus*, Jeff.), IREDALE Proc. Malac Soc. **11** p. 340.

†*Bullaria* (*Haminea ?*) *sulcobasis* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 35.

Bullidae, VON JHERING **217**.

†*Conularia haydeni* **sp. n.** Carboniferous Kashmir, DIENER Pal. Ind. **5** (2) p. 116.

Cylichna africana **sp. n.** S. Africa, BARTSCH Smiths, Inst. U. S. Nat. Mus. Bull. **91** p. 5.

Cylichnina strigella, (Lovén), IREDALE **209**.

Cylindrobulla turtoni **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 8.

Doididae, VON JHERING **217**.

Doriopsididae, VON JHERING **217**.

Doris verrucosa, FODERÀ **136**.

Haminea alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 6.

Hermaea dendritica, CUCAGNA & NUSBAUM-HILAROWICZ **93**; *Hermaea dendritica*, CUCAGNA & NUSBAUM **94**.

†*Hyolithes* with *H.* (*Orthotheca*) *irravadicus*, *loczyi*, *advena* **spp. n.** Ordovician Shan States REED Pal. Ind. **6** (1) pp. 18–20.

†*Hyolithus fabaceus*, HEDE **184**.

Leuconopsis pacifica **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 545.

Limacina, IREDALE **211**.

Pleurobranchidae, VON JHERING **217**.

Pleurophyllididiidae, VON JHERING **217**.

Pteropoda, VAYSSIÈRE **422**.

Ptisanula limnaeoides, ODHNER **288**.

Retusa iredaleana **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 752.

Ringicula truncata **sp. n.** Ceylon, SOWERBY Proc. Malac. Soc. **11** p. 214; *R. turtoni*, *africana* **spp. n.** S. Africa. BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 7; *Ringicula*, HEDLEY **186**.

Runcina, SALVADORI & CAMERANO **351**.

Styliola africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 3.

Tethydidae, VON JHERING **217**.

Tethys (*Neaplysia*) *californica*, COCKERELL **75**.

Tornatina estriata Preston = *T. soror*, Preston, PRESTON Rec. Ind. Mus. **11** p. 297; *Tornatina* A Ads., IREDALE **211**.

Tornatinidae, VON JHERING **217**.

Triopha, COCKERELL **79**.

Tritoniidae, VON JHERING **217**.

Pulmonata.

APERIDAE TESTACELLIDAE AND SELENITIDAE.

Apera with *A. gibbonsi rubella*, *A. g. gracilis*, *A. g. lupata* & **var. n.** *duplex* **subspp. n.** *A. parva*, *dimidia*, *sexangula* **spp. n.** S. Africa *A. gibbonsi*, *purcelli*, *burnupi* **fig.**, WATSON Ann. Natal Govt. Mus. **3** pp. 193–219.

Ennea affectata, Fulton & *E. rosenbergiana*, Preston FULTON **149**.

Glandina guttata, VIGNAL **424**.

†*Spiraxis* ? *tampae* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 31.

Streptaxis gudei **sp. n.** Tonkin, FULTON Proc. Malac. Soc. **11** p. 222.

Testacella maugei, WATSON **438**; *T. scutulum*, OLDHAM **290**.

Varicella nemorensis Ads. **fig.** WATSON Ann. Natal Govt. Mus. **3** p. 250.

LIMACIDAE, PHYLOMYCIDAE AND ZONITIDAE.

Arion empiricorum, KÖNIG **239**.

Atopos **subgen. n.** *Parapodangia A.* (*P.*) *gravelyi* **sp. n.** Lower Burma, GHOSH Rec. Ind. Mus. Calcutta **11** p. 153.

Dyakia venator **sp. n.** Borneo, GUDE Proc. Malac. Soc. **11** p. 321.

Hemiplecta, SCHEPMAN **354**.

Hyalinia cheliella **var. n.** *atlasica*, *H.* (*Zonitoides*) *aguergourensis* **sp. n.** Morocco, PALLARY Bull. Mus. Paris **1915** p. 21; *H. excavata*, BOYCOTT **46**; *Hyalinia*, BOYCOTT **45**.

Limax flavus, *maximus*, COCKERELL **76**; *L. flavus*, S. **346**.

Megaustenia **nom. nov.** for *Cryptosoma*, Theob. *praeoce*, COCKERELL Nautilus **1912** p. 70. [Previously imperfectly recorded.]

Nanina (*Xesta*) *dejeani* **sp. n.** Thibet, DAUTZENBERG J. conchyliol. Paris **62** p. 154.

Peltatus polystephes **sp. n.** British East Africa, TOMLIN Proc. Malac. Soc. **11** p. 319.

Suterella **gen. n.** (*Zonitidae*), IREDALE Trans. N. Z. Inst. **47** p. 478.

Vitrea with *V. cryptomphala* **sp. n.** Alabama, CLAPP Nautilus **29** p. 25.

Vomanus **subgen. n.** (*Janellidae*), IREDALE Trans. N. Z. Inst. **47** p. 483.

Xesta, SCHEPMAN **354**.

Zonites leopoldianus, HESSE **197**.

Zonitoides excavatus, S. **346**.

ENDODONTIDAE.

Cavellia **gen. n.** Type *Helix biconcava*, Pfr., IREDALE Trans. N. Z. Inst. **47** p. 481.

Egestula **gen. n.** Type *Helix egesta*, Gray, IREDALE Trans. N. Z. Inst. **47** p. 481.

Fectola **gen. n.** Type *Helix infecta*, Rve., IREDALE Trans. N. Z. Inst. **47** p. 481,

Mocella **gen. n.** Type *Helix corniculum*, Rve., IREDALE Trans. N. Z. Inst. **47** p. 481.

Phelussa **gen. n.** (*Eudodontidae*), IREDALE Trans. N. Z. Inst. **47** p. 479.

HELICIDAE.

Acanthinula, HESSE **195**.

Albea maroccana **sp. n.** Morocco PALLARY Bull. Mus. Paris **1915** p. 22.

Albersia, SCHEPMAN **354**.

Archelix ahmarina **var. n.** *ksebiana*. Morocco, PALLARY Bull. Mus. Paris **1915** p. 27.

Ashmunella with *A. tetrodon*, *A. t. mutator*, *inermis*, *A. danielsi*, *A. d. dispar*, *A. mogollonensis* **spp.** & **subspp. n.** New Mexico, PILSBRY & FERRISS Nautilus **29** pp. 15, 29–35, 41–42.

Buliminopsis abbreviatus **sp. n.** Tonkin, BAVAY & DAUTZENBERG J. conchyliol. Paris **62** p. 150.

Chloritis verrucosa **sp. n.** Tenimber Isds. FULTON Proc. Malac. Soc. **11** p. 323; *Chloritis*, RIDDLE **334**.

†*Dimorphoptychia*, WENZ **439**.

Dorcasia with *D. rogersi* **sp. n.** *D. alexandri*, Gray var. *perspectiva* **var. n.** S. Africa, CONNOLLY Ann. S. Af. Mus. **13** pp. 161–172, 177.

Dorcasiinae **subfam. n.** (*Helicidae*), CONNOLLY Ann. S. Af. Mus. **13** p. 134.

Eremina duroi, BŒTTGER **35**.

Euparypha pisana **varr. n.** *ampullacea*, *gracilis*, *E. dehnei* **var. n.** *turgida* Morocco, PALLARY Bull. Mus. Paris **1915** p. 22.

Helicella gigaxii **varr. n.** *alba*, *hyalozonata* England, OLDHAM J. Conch. Leeds **14** p. 306; *H. gigaxii* BOYCOTT & JACKSON **48**; OLDHAM **289**; *H. virgata* m. *sinistrorsum* GYNGELL **173**.

†*Helicella* (*Candidula*) *crayfordensis* **sp. n.** Pleistocene England, KENNARD & WOODWARD Proc. Malac. Soc. **11** p. 270.

Helicogena pomatia, HILBERT **199**.

Helix aspersa & var. *exalbida*, STELFOX **390**; *H. bulbus*, CONNOLLY **86**; *H. carpiensis*, BOFILL Y POCH **36**; *H. hortensis*, JOHNSON **222** & **224**; *H. hortensis* var. *fascialba*, JOLLIFFE **227**; *H. nemoralis*, ARKELL **12** & MATTHEW **263**; *H. nodifera*, Pfr. FULTON **150**; *H. obvia*, LA BAUME **243**; *H. pisana*, CHACE **60**; *H. pomatia*, BOULANGÉ **41** & FLOSSNER **135**; *H. ruderata*, *diodonta*, *tecta*, *zelebori*, *redtenbacheri*, *joppensis*, *simulata*, *cretica*, *instabilis*, HESSE **197**; *H.* (*Ganesella*?) *mellea* **sp. n.** Indo-China, BAVAY & DAUTZENBERG J. conchyliol. Paris **62** p. 147; *H.* (*Macularia*) *pauli* **sp. n.** Morocco, DAUTZENBERG J. conchyliol. Paris **62** p. 158.

†*Helix veterna veternior* **subsp. n.** Eocene Wyoming, COCKERELL Bull. Amer. Mus. Nat. Hist. **34** p. 117.

Hygromia hispida var. *nana*, BOWELL **43**.

Massylaea rerayana **var. n.** *alta* Morocco, PALLARY Bull. Mus. Paris **1915** p. 27.

Metatheba **subgen. n.** Type *Theba samsunenensis*, Pfr. HESSE NachrBl. D. Malak. Ges. **47** p. 55.

Oreohelix cooperi berryi **subsp. n.** Montana, PILSBRY Nautilus **29** p. 48; *O.* (*Radiocentrum*) *hachetana*, *O.* (*R.*) *h. cadaver*, *O.* (*R.*) *ferrissi*, *O.* (*R.*) *f. morticina* **spp.** & **subspp. n.** Florida, PILSBRY Philadelphia Proc. Acad. Nat. Sci. **67** pp. 330–334.

Papuina, SCHEPMAN **354**.

Paratheba **subgen. n.** Type *Theba fruticola*, Kryn., HESSE NachrBl. D. Malak. Ges. **47** p. 55.

Planispira subatacta **sp. n.** West Celebes, FULTON Proc. Malac. Soc. **11** p. 322; *P.* with *P.* (*Cristigibba*) *leptocheila* **var.** [**n**?] *efasciata* Waigeu, SCHEPMAN Amsterdam Bijdr. Dierk. Af. **20** pp. 20–21; *P. quadrifasciata*, GUILLOU, FULTON **150**.

Plectopylis (*Endothyra*) *oakesi*, *gregorsoni*, *miriensis*, *P.* (*Chersaecia*) *williamsoni*, *bedfordi*, *P.* (*Endoflon*) *aborensis*, *P.* (*Sinicola*) *babbagei* **spp. n.** Abor Country, GUDE Rec. Ind. Mus. **8** pp. 504–512.

Plectotropis austeni **sp. n.** Upper Rotung, PRESTON Rec. Ind. Mus. **8** p. 537; *Plectotropis*, SCHEPMAN **354**.

†*Pleurodonte eohippina* **sp. n.** Eocene Wyoming, COCKERELL Bull. Amer. Mus. Nat. Hist. **34** p. 119.

Polygyra inflecta mobilensis **var. n.** Alabama, CLAPP Nautilus **28** p. 128.

Praticolella with *P. mobiliana floridana* **var. n.** *P. bakeri* **sp. n.** *P. jejuna clavis* **var. n.** Florida, VENATTA Philadelphia Proc. Acad. Nat. Sci. **67** pp. 194–198.

Pyramidula rupestris, BOWELL **42**.

Sonorella hachitana flora, *S. h. peloncillensis* **subspp. n.** Florida, PILSBRY Philadelphia Proc. Acad. Nat. Sci. **67** pp. 347–340; *Sonorella ferrissi*, *dragoonensis*, *apache*, *bartschi*, *santantana*, *walkeri* & *w. aquacalientensis*, *clappi*, *granulatissima occidentalis*, *tumamocensis*, *papagorum*, *eremita*, *sitiens* & *s. arida* & *s. comobabiensis*, *ashmuni copax* & *a. ambigua*, *vespertina*, *baboquivariensis* & *b. depressa* **spp.** & **subspp. n.** Arizona, PILSBRY & FERRISS Philadelphia Proc. Acad, Nat. Sci. **67** pp. 368–371, 384, 393–398, 401–411, 414–417.

Stenopylis. FULTON **149**.

†*Strobilops* with *S.* (*S.*) *cossmanni* Upper Eocene France; *S.* (*S.*) *uniplicata* var. *depressa*, *S.* (*S.*) *fischeri* Tertiary Germany; *S.* (*S.*) *romani* Tertiary France **spp.** & **var. n.**, WENZ N. Jahrb. Min. Stuttgart **2** 1915 pp. 72–86.

Tachea, FRANKENBERGER **140**.

†*Tachea*, FRANKENBERGER **140**.

Theba melitensis Upper Euphrates; *T. hemitrichia* Bulgaria **spp. n.**, HESSE NachrBl. D. Malak. Ges. **47** pp. 58–60; *Theba*, HESSE **195**.

Trigonephrus with *T. namaquensis* (*M.* & *P.*) **var. n.** *procerus*, *T. ambiguosus* (Fér.) **var. n.** *compactus* S. Africa, CONNOLLY Ann. S. Af. Mus. **13** pp. 140–161, 176.

Trochula antoniae **sp. n.** Morocco, PALLARY Bull. Mus. Paris **1915** p. 26; *T. filocincta* **sp. n.** Asia Minor, HESSE NachrBl. D. Malak. Ges. **47** p. 61.

Tulbaghinia, CONNOLLY **86**.

Vallonia sonorana **sp. n.** Florida, PILSBRY Philadelphia Proc. Acad. Nat. Sci. **67** p. 345.

†*Vallonia moguntiaca* **sp. n.** Cainozoic Germany, WENZ NachrBl. D. Malak. Ges. **47** p. 41.

Xanthomelon, RIDDLE **334**.

Xerophila brivesi, *lamprierei*, *goundafiana*, *thomsoni*, *embareki*, *hassaniana*, *taiebi*, *youssefi* **spp. n.** Morocco, PALLARY Bull. Mus. Paris **1915** pp. 23–26.

BULIMIDAE AND BULIMULIDAE.

Bulimulus schiedeanus, CLAPP **68**.

†*Bulimulus* (*Hyperaulax*) *tampae*, *ballistae*, *tortilla*, *remolina* **spp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 26–27.

†*Grangerella megastoma* **gen.** & **sp. n.** (*Bulimulidæ*) Eocene Wyoming, COCKERELL Bull. Amer. Mus. Nat. Hist. **34** p. 116.

Placostylus (*Callistocharis*) *subroseus* **sp. n.** Viti Isds., FULTON Proc. Malac. Soc. **11** p. 242.

BULIMINIDAE, UROCOPTIDAE AND PUPIDAE.

Bifidaria (*Bensonella*) *landurensis* **sp. n.** India, PILSBRY Nautilus **29** p. 73.

Buliminus (*Mauronapacus*) *issarnensis* **sp. n.** Morocco, PALLARY Bull. Mus. Paris **1915** p. 27.

Cerion, BARTSCH **22**.

Clausilia duporti, *flaveola* **spp. n.** Tonkin, BAVAY & DAUTZENBERG J. conchyliol. Paris **62** pp. 151–152; *C. marteli* **sp. n.** Thibet, DAUTZENBERG J. conchyliol. Paris **62** p. 155; *C.* (*Phaedusa*) *annandalei* **sp. n.** Upper Rotung, PRESTON Rec. Ind. Mus. **8** p. 538; *C. falciformis* var. *montana*, Mlldff., FULTON **149**; *C. bidentata*, BOYCOTT **47**; *Clausilia*, COOKE **88** & SMITH **372**.

†*Clausilia*, COOKE **88**.

†*Eucalodium eophilum* **sp. n.** Eocene Wyoming, COCKERELL Bull. Amer Mus. Nat. Hist. **34** p. 117.

Holospira bilamellata longa **form. n.** *H. b. heliophila, insolata, media* **subspp. n.** Florida, PILSBRY Philadelphia Proc. Acad. Nat. Sci. **67** pp. 337–339; *H. danielsi, campestris* & *c. cochisei, millestriata, arizonaris mularis, ferrissi fossor, f. sanctaecrucis* **spp.** & **subspp. n.** Arizona, PILSBRY & FERRISS Philadelphia Proc. Acad. Nat. Sci. **67** pp. 373–380, 386–388.

Microceramus longus **sp. n.** Cuba, HENDERSON Nautilus **28** p. 136.

†*Microcerion floridanum* **gen.** & **sp. n.** (*Cerionidae*), Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 29.

Orcula bulgarica **sp. n.** Bulgaria, HESSE NachrBl. D. Malak. Ges. **47** p. 62.

Pupoides inornatus **sp. n.** S. Dakota, VANATTA Nautilus **29** p. 95.

†*Pupoides pilsbryi* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 29.

Stenogyra [*Rumina*] *decollata*, WILLE **442**.

Tomigerus, FULTON **149**.

Urocoptidæ, CLAPP **72**.

Urocoptis (*Arangia*) *scobniata* **sp. n.** Cuba, RAMSDEN Nautilus **28** p. 133.

Vertigo with *V. alabamensis* & *V. a. conecuhensis* **sp.** & **subsp. n.** Alabama, CLAPP Nautilus **28** p. 137.

STENOGYRIDAE AND ACHATINELLIDAE.

Achatinella sowerbyana thurstoni, A. s. laiensis, A. s. dextroversa, A. s. roseoplica **subspp. n.** *A.* (*Achatinellastrum*) with *A.* (*A.*) *casta margaretæ, A.* (*A.*) *spaldingi, A.* (*A.*) *thaamuni* (sic) [? *thaanumi*] **spp.** & **subsp. n.** *Achatinella* s. str. with *A. turgida perplexa, A. t. simulacrum, A. leucorraphe irwini, A. swifti chromataeme, A. apexfulva beata, A. a. aloha, A. valida kahukuensis* **subspp. n.** Hawaiian Isds., PILSBRY Man. Conch. **22** Pt. 88 pp. 177–354.

Achatinellidæ, PILSBRY **312** & HYATT in PILSBRY **205**.

Amastra with *A.* (*Cyclomastra*) *obesa aurora, A.* (*C.*) *metamorpha, A.* (*C.*) *m. debilis, A.* (*C.*) *antiqua kawaihapaiensis, umbilicata arenarum, fragilis, ultima, A.* (*Metamastra*) *eos, transversalis bryani, reticulata vespertina, A. kaunakakaiensis, kalamaulensis, humilis moomomiensis, h. sepulta, nubilosa georgii, albocincta, goniops, lahainana, neglecta, subsoror auwahiensis, nubigena, melanosis kauensis* **spp.** & **subspp. n.** Hawaiian Isds., PILSBRY Man. Conch. **21** Supple. Pts. 89–90 pp. 18–52.

Amastridæ, PILSBRY **312**.

Auriculella with *A. diaphana cacuminis, A. straminea, olivacea, montana, minuta, perversa, turritella, serrula, tantalus, flavida, lanaiensis* **spp.** & **subsp. n.** Hawaiian Isds., PILSBRY Man. Conch. **21** Supple. Pt. 90 pp. 71–111.

Bulimus subgen. *Pseudoclavator* Germain, P. Nautilus **28** 1914 p. 60.

Cæcilioides gundlachi, CLAPP **70**.

Carelia, PILSBRY **312**.

Curvella caloraphe, Preston **fig.**, WATSON Ann. Natal. Govt. Mus. **3** p. 250.

Elasmias with *E. luakahaense, anceyanum* **spp. n.** Hawaiian Isds., PILSBRY Man. Conch. **21** Supple Pt. 90 pp. 113–128.

Ferussacia atlasica & var. *minor* **sp.** & **var. n.** Morocco, PALLARY Bull. Mus. Paris **1915** p. 27.

Gulickia **gen. n.** Type *G. alexandri* **sp. n.** Hawaiian Isds., PILSBRY Man. Conch. **21** Suppl. Pt. 90 p. 112.

Laminella with *L. gravida kalihiensis, g. aurantium, g. waianaensis* **subspp. n.** Hawaiian Isds., PILSBRY Man. Conch. **21** Supple Pt. 90 pp. 52–56.

Leptachatina with *L. popouwellensis, sagittata, oryza hesperia, o. avus, L. dormitor, somniator, L. opipara manana, L. megregori, L.* (*Angulidens*) *microdon, hyperodon, L.* (*Ilikala*) *nematoglypta* **spp.** & **subspp. n.** Hawaiian Isds. PILSBRY Man. Conch. **21** Supple. Pt. 89 pp. 1–14.

Newcombia, PILSBRY **312**.

Partulina with *P. thwingi* **sp. n.** *P. virgulata* **var. n.** *kaluaahacola, P. subpolita* **sp. n.** *P. dwighti* var. *occidentalis, P. redfieldi* var *kamaloensis* **varr. n.** *P. physa konana* **subsp. n.** Hawaiian Isds., PILSBRY Man. Conch. **22** Pt. 88 pp. 356–361.

Pauahia, PILSBRY **312**.

Pterodiscus, PILSBRY **312**.

Tornatellinidae PILSBRY **312**.

SUCCINEIDAE, VERONICELLIDAE, AND ONCIDIIDAE.

Onchidium, SCHEPMAN **354**.

Succinea putris, pfeifferi, S. **346**.

AURICULIDAE, LIMNÆIDAE, PHYSIDAE, CHILINIDAE AND SIPHONARIIDAE.

Acroloxus lacustris, POPPLE **319**.

Ancylus fluviatilis, POPPLE **319**.

Gundlachia, DALL **105**; PILSBY **313**.

Kerguelenia innominata **nom. n.** for *Siphonaria lateralis*, Gld., IREDALE Trans. N. Z. Inst. **47** p. 478.

Limnaea [vide etiam *Limnea* et *Lymnaea*], SCHEPMAN **354**; *L. auricularia*, S. **346**; *L. truncatula* PALLARY **300**.

†*Limnea* [vide etiam *Limnaea* et *Lymnaea*] *hopii* **sp. n.** Mesozoic Arizona, ROBINSON Amer. J. Sci. **40** pp. 650–651.

Lymnaea [vide etiam *Limnea* et *Limnaea*], COLTON **84** & **85**; *L.* (*Pseudosuccinea*) *columella* VANATTA **418**.

Lymnaeidae, BAKER **16**.

Marinula with *M. tristanensis* **sp. n.** Tristan d'Acunha etc. *M. velaini* **nom. n.** for *M. nigra*, Phil. CONOLLY Ann. S. Af. Mus. **13** pp. 108, 113; *M. tristanensis* ROBSON **337**.

Otina auricula (Turt), IREDALE **209**.

Planorbis (*Gyraulus*) *labiatus*, Benson **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** p. 119; *P. glaber, vortex, carinatus*, S. **346**; *P. lentus* WALKER **434**.

†*Planorbis tampaensis, P.* (*Torquis*) *elisus* **spp. n.** Oligocene Florida DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** pp. 30-31.

Pythia, SCHEPMAN **354**.

Siphonaria with *S. raoulensis, cheesemani, macaulayensis, & m. perplexa, S. amphibia* **spp. & subsp. n.** Kermadec Isds. OLIVER Trans. N. Z. Inst. **47** pp. 445–448; *S. virgulata* **sp n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 751.

Siphonariidae, VON JHERING **217**.

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Microparmarion SCHEPMAN, **354**.

Scaphopoda.

†*Dentalium martini* **sp. n.** Célèbes Oligocène DOLLFUS Paléont. de Célèbes p. 35; *D. molengraaffi, nanggulanense* **spp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus **2** p. 179; *D. sexangulum* MELI **266**.

Pelecypoda or Lamellibranchia.

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Lamellibranchia, HEATH **183**.

†*Lamellbranchia*, ALLEN **4**.

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OSTRACEA.

†*Anomia triadica* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 95.

Crassostrea, L. **242**.

†*Exogyra upatoiensis, ponderosa erraticostata, costata cancellata* **sp. & varr. n.** Southeastern U. S. Cretaceous, STEPHENSON U. S. Geol. Surv. Prof. Paper No. **81** pp. 46, 49, 53.

Meleagrina Lk., IREDALE **211**.

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Ostrea edulis, HILLMAN **200**.

†*Ostrea buwaldana weaveri* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 127; *O. calabra* **sp. n.** Jura Italy, ONETTI Rev. ital, paleont. Parma **21** p. 48; *O. sultani. puruensis, jogjacartensis* **spp. n.** Java, Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** pp. 181, 182; *O. vaughani* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 123; *O. virginica*, SHIMER **362**; *Ostrea*, JOLEAUD **226**.

Placenta Retz., IREDALE **211**.

PECTINACEA.

†*Aviculopecten middlemissii* **sp. n.** Carboniferous Kashmir, DIENER Pal. Ind. **5** (2) p. 18.

Chlamys cellularis **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 554; *C. consociata* **sp. n.** New Zealand, SMITH Brit. Ant. Exp. **2** p. 89.

†*Chlamys rutteni* **sp. n.** Java, Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** p. 182.

†*Hinnites colosseus* **sp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** p. 438.

Lima africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 187.

†*Lima* (?) *claytonensis, haseltinei* **spp. n.** California Eocene, DICKERSON Univ Cal. Pub. Bull. Dept. Geol. **8** p. 126; *L. perrini* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 782.

Limatula with *L. insularis* **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 554.

†*Mysidioptera eximia* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 91.

Pecten (*Chlamys*) *scabricostatus* **sp. n.** W. Australia, SOWERBY Ann. Mag. Nat. Hist. **15** p. 168; *Pecten* KÜPFER **241**.

†*Pecten abendanoni* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 39; *P.* (*Chlamys*) *middlemissi* **sp. n.** Trias Kashmir DIENER Pal. Ind. **5** (1) p. 111; *P.* with *P.* (*Plagioctenium*) *bilineatus*,(*Pecten*) *cierboensis*,(? *Plagioctenium*) *crassiradiatus*, (*Pecten*) *raymondi*, (*Pallium*) *holwayi* (*Patinopecten*) *weaveri* **spp. n.** Tertiary California CLARK Bull. Dept. Geol. Univ. California **8** pp. 448-455; *P. obrutus* BLANCKENHORN **33**; *Pecten* FABIANI **127**.

Spondylus with *S. raoulensis* **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 553; *Spondylus* with *S. reevei* **nom. n.** for *S. hystrix*, Rve., *S. imperialis var. purus*, *S. electus*, *lamyi*, *igneus* [Loc. ?]; *S. depressus*, New Caledonia **var.** & **spp. n.**; *S. smithi* **nom. n.** for *S. radula*, Rve.; *S. gravis* Philippine Isds.; *S. iredalei* Kermadec Isds. **spp. n.**, FULTON J. Conch. Leeds **14** pp. 331-338, 353-362.

MYTILACEA.

Atrina alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 183.

†*Avicula pastannahensis* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 88; *A.* with *A.* (*Oxytoma*) *petitclerci* **sp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 396-405.

Crenella alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 189.

†*Daonella americana, sanctae-anae* Triassic N. America, SMITH U. S. Geol. Surv. Prof. Paper No. **83** pp. 143-145.

†*Dreissena* NELLI **282**.

†*Hoernesia bhavani* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 107.

Idasola **gen. n.** for *Idas*, Jeff., IREDALE Proc. Malac. Soc. **11** p. 340.

†*Inoceramus* with *I. ischeri* **sp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 414-424; *Inoceramus* BÖHM **37** & YABE **448**.

†*Leptodesma carboniferum, spergenense* var. *robustum* **sp.** & **var. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 88-89.

†*Lithodomus* with *L. salinensis, bathonicus* **spp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 321-334.

†*Maccoyella barklyi* NEWTON **284**.

Modiola [vide etiam *Modiolus*] *taprobanensis* **sp. n.** Ceylon, PRESTON Ann. Mag. Nat. Hist. **16** p. 84; *M. modiolus* RETZIUS **332**; *M. pulex* HEDLEY **186**.

†*Modiola lidarensis* **sp. n.** Carboniferous Kashmir, DIENER Pal. Ind. **5** (2) p. 16.

Modiolus neozelanicus **nom. n.** for *Mytilus ater*, Zel., IREDALE Trans. N. Z. Inst. **47** p. 484.

†*Modiolas* [vide etiam *Modiola*] *blandus* **sp. n.** Oligocene Florida DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 127; *M. bakeri* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 128; *M. gabbi* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 458; *M. stalderi* **sp. n.** California Pliocene MARTIN Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 182.

Modiolarea africana, ima **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 190.

Modiolaria phenax **sp. n.** Bering Sea, DALL Nautilus **28** p. 138.

†*Modiolopsis linguatus* **sp. n.** Sweden Silurian, HEDE Lund Univ. Årsskr. N. F. **11** Afd. 2 No. 6 p. 27; *M. thebawi* **sp. n.** Ordovician Shan States REED Pal. Ind. **6** (1) p. 15.

Musculus niger, (Gray) IREDALE **209**.

†*Myalina* with *M. welleriana, elongata* **spp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 93–97.

Mytilus with *M. maorianus* **nom. n.** for *M. magellanicus*, Lk., IREDALE Trans. N. Z. Inst. **47** p. 484; *M. edulis* MEVES **269**; *Mytilus* MULON **278**.

†*M. merriami, perrini*, (*Mytiloconcha*) *trampasensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 455–457; *M.* with *M.* (*Modiola*) *eberhardti, M.* (*Rhynchomytilus*) *studeri, meisteri, M.* (*Pernomytilus*) *montanus randenensis, M.* (*Arcomytilus*) *vesuntinus* **spp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 334–370.

†*Perna brentonensis, theseni* **spp. n.** Cretaceous S. Africa, SCHWARZ Grahamstown Rec. Alb. Mus. **3** p. 123; *P.* with *P. moeschi* **sp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 424–437.

Pinctada, Bolten IREDALE **211**.

†*Pinna barrowsi* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 125; *P. lewisi* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 785; *P.* with *P.* (*Pinnigena*) *greppini, P.* (*Trichites*) *fibrosa, thiessingi, pustulata* **spp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 370–395.

†*Pseudomonotis* with *P. greppini, kiliani* **spp. n.** Mesozoic C. Europe, ROLLIER Mem. Soc. Pal. Suisse **40** pp. 405–414; *P.* (*Eumicrotis*) *middlemissi* **sp. n.** Carboniferous Kashmir, DIENER Pal. Ind. **5** (2) p. 60.

Rhomboidella prideaux (Leach), IREDALE **209**.

Volsella compta **sp. n.** Japan, SOWERBY Ann. Mag. Nat. Hist. **15** p. 168.

ARCACEA.

Arca strabo **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 697; *A.* (*Barbatia*) *novae-zelandiae* **sp. n.** New Zealand, SMITH Brit. Ant. Exp. **2** p. 88; *A.* (*Fossularca*) *lactea*, Lin. PRESTON **321**.

†*Arca grammatodonta* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 118; *A. nanggulanensis, molengraaffi* **spp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** 1915 pp. 183, 184; *A.* (*Anadara*) *diluvii* MELI **266**.

†*Axinaea puruensis* **sp. n.** Java Eocene, MARTIN Leiden Samml, Geol. Reichsmus. **2** p. 186.

Barbatia alfredensis, cafria **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 182–183.

Cratis **gen. n.** Genotype *C. progressa* **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. Wales **39** p. 698.

†*Ctenodonta retusa* **sp. n.** Sweden Silurian, HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 28; *C. shanensis* **sp. n.** Ordovician Shan States, REED Pal. Ind. **6** (1) p. 16.

†*Cucullaea morani* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 784.

†*Glycymeris lamyi* **sp. n** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 122; *G. ruckmani* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 52.

Hochstetteria alfredensis, paramoea **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 184.

Leda with *L. dasea, electilis, narthecia* **spp. n.** N. Queensland, HEDLEY Proc. Linn. Soc. N. S. W. **39** pp. 695–696.

†*Leda posti* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 117; *L. packardi, milleri* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 123; *L. uvasana, vaderensis* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac, **5** pp. 51–52.

Limopsis lilliei Antarctic, *L. janeiroensis* Off Rio de Janeiro **spp. n.**, SMITH Brit. Ant. Exp. **2** pp. 76, 99.

†*Limopsis modesta* **sp. n.** Tertiary S. America, DOELLO-JURADO Bol. Soc. Physis Buenos Aires **1** p. 594; *L. aurita*, MELI **266**.

†*Nucula elliptica, N.? reticulata* **spp. n.** Bornholm Silurian, HADDING Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 4 pp. 26–27; *N. tampae* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 116.

Nuculana (*Adrana*) *janeiroensis* **sp. n.** Off Rio de Janeiro, SMITH Brit. Ant. Exp. **2** p. 98.

Philobrya africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 185.

Poroleda spathula **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 696.

†*Schizodus* with *S. depressus* var. *abruptus*, *brannerianus* **var. & sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 97–102.

†*Trigonia kitchini* **sp. n.** Cretaceous S. Africa, SCHWARZ Grahamstown Rec. Alb. Mus. **3** p. 124; *T.* with *T. datemasamunei*, *hokkaidoana*, *kotoi*, *yokoyaniai*, *brevicula* **spp. n.** Cretaceous Japan, YAHARA Sci. Rep. Imp. Univ. Sendai Japan 2nd ser. (geol.) **2** pp. 35–44; *T. neozelanica* **sp. n.** Tertiary New Zealand, SUTER N. Z. Geol. Surv. Pal. Bull. **3** p. 50.

†*Yoldia carnarosensis* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 446; *Y. gesteri*, *powersi* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept Geol. **8** p. 124.

SUBMYTILACEA.

Alasmidonta, WILSON & CLARK **444.**

Anodonta, CALUGAREANU **55**; SURBER **396**; WILSON & CLARK **444.**

Anodontites salmonea, *darochai*, *aurora* **spp. n.** Brazil, MARSHALL U. S. Nation. Proc. Mus. **49** p. 527–529.

Anodontoides, WILSON & CLARK **444.**

†*Anodontophora patarkulensis* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 95.

†*Astarte silana* **sp. n.** Jura Italy, ONETTI Rev. ital. paleont. Parma **21** p. 55.

†*Cardita hillegondae* **sp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** p. 186; *C.* (*Cardita*) *shepardi* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 133.

†*Cardinia hybrida*, *grecoi* **spp. n.** Jura Italy, ONETTI Rev. ital. paleont. Parma **21** pp. 53–55.

Carditopsis alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 193.

Carunculina parva, *taxasensis*, ORTMANN **294.**

Condylocardia io **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 193.

†*Crassatellites brainerdi* **sp. n.** California Eocene DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 300; *C. brunneri* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 782; *C. studleyi*, *stewartvillensis*, *claytonensis* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 129–131.

Cuna concentrica **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 191.

Cyprogenia, WILSON & CLARK **444.**

Digitaria africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus Bull. **91** p. 194.

Dromus, WILSON & CLARK **444.**

Eurynia (*Micromya*) *perpurpurea*, *nebulosa*, *vanuxemensis*, *constricta* ORTMANN **294.**

Harmandia = *Hyria* Juv., FRIERSON Nautilus **29** p. 82.

Lamellidens (*L.*) *marginalis*, Lk. var. *sublamellata*, Preston, var. *sawaddyensis*, Preston, *L.* (*L.*) *narainporensis*, Preston, *nongyangensis*, Preston, *phenchooganjensis*, Preston, *mainwaringi*, Preston **fig.** PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. 1915 pp. 182, 186, 188, 189, 191, 192.

Lampsilis, SURBER **396**; WILSON & CLARK **444.**

Lasmigona subviridis, FRIERSON **144.**

Lastena lata, ORTMANN **294**; WILSON & CLARK **444.**

Margaritana, SURBER **396**; WILSON & CLARK **444.**

Medionidus conradicus, ORTMANN **294**; WILSON & CLARK **444.**

Mycetopoda, DOELLO-JURADO **118.**

†*Myoconcha ? dubia* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** p. 106.

†*Myophoria middlemissii* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 104.

Nodularia (*N.*) *chaudhurii*, Preston, *theobaldi*, Preston **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** pp. 140, 144.

Obliquaria, WILSON & CLARK **444.**

Obovaria, SURBER **396**; WILSON & CLARK **444**.

Parreysia favidens, Benson var. *chrysis*, Bens,, var. *viridula*, Bens., var. *assamensis*, Preston var. *pinax*, Bens., var. *plagiosoma*, Bens., *P. pernodulosa*, Preston, *daccaensis*, Preston, *perconvexa*, Preston, *annandalei*, Preston **fig.** PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** pp. 160–162, 164, 166, 172, 173.

Pegias, WILSON & CLARK **444**.

Plagiola, WILSON & CLARK **444**.

Pleurobema missouriensis, WALKER **430**; *Pleurobema* WILSON & CLARK **444**.

Pseudodon (*Trigonodon*) *peguensis*, Ant var. *curvata*, Preston **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** p. 151.

Ptychobranchus, WILSON & CLARK **444**.

Quadrula, HOWARD **203**; SURBER **396**; WILSON & CLARK **444**.

Solenaia soleniformis, Benson **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** p. 133.

Strophitus, WILSON & CLARK **444**.

Symphynota, WILSON & CLARK **444**.

Truncilla with *T. walkeri* **sp. n.** Tennessee, WILSON & CLARK Washington D.C. Rep. U. S. Com. Fish. **1912** No. 781 pp. 45–46.

Unionidæ HOWARD **204**; ISELY **212**; WILSON & DANGLADE **445**.

Unio, SURBER **396**; VANATTA **420**; WILSON & CLARK **444**; *U. viridis*, Conrad., WALKER **431**.

†*Unio grangeri*, *eomargaron*, *didymictidis*, *sinopæ* **spp. n.** Tertiary Wyoming, COCKERELL Bull. Amer. Mus. Nat. Hist. **34** pp. 122–125; *U. jaqueti*, *white-cliffensis* **spp. n.** Upper Cretaceous N. S. Wales, NEWTON Proc. Malac. Soc. **11** pp. 230–231; *U. nerei* **sp. n.** Pontian Greece, NELLI Boll. Soc. geol. ital. **33** p. 216.

Venericardia africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 192.

ERYCINACEA.

Bornia farica, *africa*, *B.* (*Pythina*) *africana* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 198–199.

†*Bornia tampae* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 141.

Erycina alfredensis, *ima*, *carifa*, *rifaca* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 197–198; *E. helmsi* **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 701.

†*Erycina? indecisa* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 141.

Kellya chilkaënsis, *mahosaënsis* **spp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 298.

Lasæa [vide etiam *Lasea*] *australis* HEDLEY **186**.

Lasea [vide etiam *Lasæa*] *turtoni* **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 201.

Lepton concentricum, HEDLEY **186**.

Neolepton novacambrica **sp. n.** N. S. Wales, HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 701.

Rochefortiaenora, *elsa*, *milda*, *helena*, *io*, *farma* **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** pp. 200–201.

Scintilla chilkaënsis **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 299; *Scintilla turtoni* **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 196.

CARDIACEA.

Cardium delicatulum **sp. n.** W. of Falkland Isds., SMITH Brit. Ant. Exp. **2** p. 93; *C. tuberculatum* with **var. n.** *dautzenbergi*, *spinosa*, *asperula*, *torquata*, *picta* Adriatic, COEN Genova Ann. Mus. Civ. st. nat. **6** pp. 299–304; *C.* (*Serripes*) *notabile* **sp. n.** Japan, SOWERBY Ann. Mag. Nat. Hist. **15** p. 169.

†*Cardium célébesensis* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 39; *C.* (*Trigoniocardia*) *berberum* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 145.

†*Conocardium meekanum* **var. n.** *magnum*. Carboniferous Arkansas. GIRTY U. S. Geol. Surv. Bull. **595** p. 34.

†*Limnocardium franceschii*, *sessa lonicense* **spp. n.** Pontian Greece, NELLI Boll. Soc. geol. ital. **33** pp. 217, 218.

†*Lunulicardium caudagalli* **sp. n.** Sweden Silurian, HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 29.

†*Shanina vlastoides* **gen.** & **sp. n.** Ordovician Shan States, REED Pal. Ind. **6** (1) p. 18.

CONCHACEA.

†*Amiantis* (*Amiantis*) *dalli* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 465.

†*Anisocardia verrucana* **sp. n.** Cretaceous Italy, FUCINI Pal. Ital. **21** p. 89.

Anomalocardia alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 203.

Azor chama-solen (Costa), IREDALE **209**.

†? *Callocardia nux* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 147.

†*Chione diabloensis, pabloensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 468–469; *C. elsmerensis, fernandoensis* **spp. n.** California Pliocene, ENGLISH Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 214–215.

Circe alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 203.

Corbicula alberti **nom. n.** for *C. violacea*, Clessin, PRESTON Fauna Brit. Ind. Mollusca (F. W. Gast. & Pelecyp.) **1915** p. 219; *C.* (*Velorita*) *satparaënsis*, Preston=*Meretrix casta*, Chem, PRESTON Rec. Ind. Mus. **11** p. 300.

†*Corbicula corrugata*, NEWTON **284**.

Cultellus vitreus, HEDLEY **186**.

Cyprina islandica, RETZIUS **332**.

Cyrena impressa Desh. **fig.**, PRESTON Fauna Brit. Ind. Moll. Gast & Pel. **1915** p. 202.

†*Cyrena pisana, terminetti, verrucana* **spp. n.** Cretaceous Italy, FUCINI Pal. Ital. **21** pp. 76, 86–87.

†*Cyrenopsis* with *C. australiensis, C.* (?) *elongata* **spp. n.** Upper Cretaceous N. S. Wales, NEWTON Proc. Malac. Soc. **11** pp. 228–229.

Cytherea, HEDLEY **186**.

†*Cytherea verbeeki* **sp. n.** Célèbes, Cretaceous, DOLLFUS Paléont. de Célèbes p. 9.

Diplodonta africana, almo **spp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 195; *D. satparaënsis, barhampurensis* **spp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 302.

†*Diplodonta catopotium* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 140.

Donax cacuminatus **sp. n.** N. Caledonia, SOWERBY Ann. Mag. Nat. Hist. **15** p. 170; *Donax*, LAMY **247**.

†*Dosinia* (?) *lawsoni* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 133; *D.* (*Dosinella*) *arnoldi, merriami* & var. *occidentalis* **spp.** & **var. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 459–462.

Eupera, WALKER **432**.

Felaniella alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 195.

†*Fissilunula clarkei*, NEWTON **284**.

†*Isocardia tejonensis* **sp. n.** California Eocene, WARING J. Geol. Chicago **22** p. 784.

Joanniella subquadrata **sp. n.** Queensland, HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 699.

Jukesena **nom. n.** for *Acolus* (=*Psephis foveolata*, Cooper & Preston), IREDALE Proc. Malac. Soc. **11** p. 299.

Macrocalista sophiae, HEDLEY **186**.

†*Macrocallista* (?) *packi* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 136; *M. vaderensis, M.* (?) *andersoni* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 54.

†*Meretrix boettgeri* **sp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** p. 189; *M. stantoni, dalli* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 134–135; *M. tejonensis* **nom. n.** for *M. uvasana*, Gabb. non Conrad, DICKERSON P. Calif. Ac. **5** p. 53.

Petricola esculpturata **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 301; *Petricola*, MARTIN-ICKE **262**; VERNHOUT **423**.

†*Petricola buwaldi* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 471.

Pisidium hydaspicola, Theob. *bombayanum*, Theob., *atkinsonianum*, Theob. **fig.** PRESTON Fauna Brit. Ind. Moll. Gast. & Pel. **1915** pp. 225–226; *P.* (*Fluminina*) *atlasicum* **sp. n.** PALLARY Bull. Mus. Paris **1915** p. 28; *Pisidium supinum*, JACKSON **215**; *Pisidium*, JOHANSEN **219**; RITCHIE **335**.

†*Pitaria behri, stalderi* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 467–468.

Psammobia mahosaënsis **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 303.

†*Saxidomus* (?) *noblei* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 300.

Sinodia jukes-browniana PRESTON Calcutta Rec. Ind. Mus. **11**. p. 481.

Solecurtus tenerior **sp. n.** Queensland HEDLEY Proc. Linn. Soc. N. S. W. **39** p. 706; *Solecurtus*, Blainv., IREDALE **211**.

Solen alfredensis **sp. n.** S. Africa BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 208; *S. annandalei, kempi* **spp. n.** E. India, PRESTON Rec. Ind. Mus. **11** pp. 304, 305.

†*Solen perrini* **sp. n.** Tertiary California CLARK Bull. Dept. Geol. Univ. California **8** p. 477.

Solenomorphidae should replace *Solenopsidae* COCKERELL **74**.

†*Tivela* (*Pachydesma*) *diabloensis* & var. *angulatum, gabbi*, **spp. & var. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 462–464.

Ungulina alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 196.

†*Venus martini* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** p. 469.

MYACEA.

†*Corbula ickei, watumurensis* **spp. n.** Java Eocene, MARTIN Leiden Samml. Reichsmus **2** pp. 190–191; *C. harrisi, uvasana* **spp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 56; *C. verrucana* **sp. n.** Cretaceous Italy, FUCINI Pal. Ital. **21** p. 92; *C.* (*Cuneocorbula*) *kaghriana* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 155.

Cypricia Gray, IREDALE **211**.

Eastonia africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 209.

Fistulana, IREDALE **211**.

†*Gastrochaena fragilissima* **sp. n.** Java Eocene, Martin Leiden Samml. Geol. Reichsmus. **2** p. 192.

Lutraria magna, (Costa), IREDALE **209**.

Mactra alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p, 209; *M.* (*Mactrinula*) *janeiroensis* **sp. n.** Off Rio de Janeiro SMITH Brit. Ant. Exp. 2 p. 102; *M.* (*Mulinia*) *coquimbana* FISCHER **134**; *M.* LAMY **246**.

Mactrella, DALL **104**.

Mya arenaria, RETZIUS **332**.

†*Mya* with *M. dickersoni* **sp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 478–479.

Panomya arctica (Lk), IREDALE **209**.

Panopea with *P. angusta* **sp. n.** Queensland HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 705.

†*Paphia* (?) *clarki* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 136.

†*Rhytimya granulosa* **sp. n.** Ordovician Canada, WILSON Ottawa Nat. **27** pp. 85–86.

Spisula belliana **sp. n** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 555.

†*Spisula* (?) *weaveri* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 139.

Standella annandalei **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** pp. 305–306.

Tresus, LAMY 251.

ADESMACEA.

Pholas alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 210.

Teredo, GATLIFF & GABRIEL **153**.

Xylotrya, NAKAZAWA **281**.

DIBRANCHIA.

LUCINACEA.

Codakia pisidium, HEDLEY **186**.

†*Corbis krooni* **sp. n.** Célèbes Oligocène, DOLLFUS Paléont. de Célèbes p. 38.

Cryptodon, LAMY **251**.

Phacoides Blainville, IREDALE **211**.

†*Phacoides quadrata, miurensis diaboli* **spp n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8**. pp. 131–132; *P.* (*Bellucina*) *tampaënsis* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 138.

†*Pomarangina*, DIENER **115**; KRUMBECK **240**.

Schizothaerus grandis, LAMY **251**.

Thyasira, LAMY **251**.

TELLINACEA.

Abra africana **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 206; *A. pacifica* W. Mexico; *A. tepocana, palmeri* California **spp. n.**, DALL Proc. Acad. Nat. Sci. **67** p. 28.

Capsa, LAMY **247**.

Cumingia hinduorum **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 308.

Eumontrouziera **nom. n.** for *Montrouziera* Souv. HEDLEY Proc. Linn. Soc. N.S.W. **39** p. 703.

†*Gastrana songoënsis* **sp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** p. 194.

Leptomya perconfusa **nom. n.** for *Tellina linea*, Hutt., IREDALE Trans. N.Z. Inst. **47** p. 489.

Macoma angusta **sp. n.** Off Rio de Janeiro, SMITH Brit. Ant. Exp. **2** p. 102; *M. edgari* **nom. n.** for *Tellina glabrella*, Desh., IREDALE Trans. N. Z. Inst. **47** p. 489; *M. transcalpta* Japan; *M. anatinoides* Philippines? **spp. n.** SOWERBY Ann. Mag. Nat. Hist. **15** p. 169.

†*Macoma andersoni, diabloensis, pabloensis* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 473–475.

†*Psammobia* (?) *cylindrica* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 139.

Semele with *S. sparsilineata* Chile; *S. rupicola, regularis, pacifica* California **spp. n.** DALL Proc. Acad. Nat. Sci. **67** pp. 25–27; *S. nuculoides* LAMY **249**.

†*Semele diaboli* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 55; *S. sardonica* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 154.

Strigilla polyaulax **nom. n.** for *Tellina senegalensis*, Han. *non* Gmel. TOMLIN J. Conch. Leeds **14** p. 276; *S.* with *S. tomlini* **nom. n.** for *Tellina splendida* Hanley (*nec* Anton) SMITH J. Conch. Leeds **14** p. 339.

Tellina albinella alfredensis **subsp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 205; *T. chilkaënsis, barhampurensis* **spp. n.** E. India, PRESTON Rec. Ind. Mus. **11** pp. 306–307; *T. liliana* **nom. n.**, for *T. lactea*, Q & G. *T. gaimardi* **nom. n.** for *T. alba* Q & G., IREDALE Trans. N. Z. Inst. **47** pp. 488–489; *T. viator* **sp. n.** New Caledonia, PRESTON Ann. Mag. Nat. Hist. **16** p. 84

†? *Tellina diabloensis, T. englishi, hannibali* **spp. n.** Tertiary California, CLARK Bull. Dept. Geol. Univ. California **8** pp. 471–473; *T. dira* **sp. n.** Oligocene Florida, DALL Smiths. Inst. U. S. Nat. Mus. Bull. **90** p. 151; *T. herndonensis, packardi, perrini, kewi* **spp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** pp. 136–138; *T. howardi* **sp. n.** Eocene N. America, DICKERSON P. Calif. Ac. **5** p. 55; *T. nanggulanensis, songoënsis, molengraaffi* **spp. n.** Java Eocene, MARTIN Leiden Samml. Geol. Reichsmus. **2** p. 193.

Theora alfredensis **sp. n.** S. Africa, BARTSCH Smiths. Inst. U. S. Nat. Mus. Bull. **91** p. 206.

ANATINACEA.

†*Allerisma* with *A. neglectum* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 108–109.

Anatina barkudaënsis, barkulensis **spp. n.** E. India, Preston Rec. Ind. Mus. **11** p. 309; *A. induta* PRESTON Calcutta Rec. Ind. Mus. **11** p. 482; *Anatina* Lk. IREDALE **211**.

†*Anatina verrucana* **sp. n.** Cretaceous Italy, FUCINI Pal. Ital. **21** p. 90.

†*Antipleura? cucullæiformis* **sp. n.** Sweden Silurian, HEDE Lund. Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 32.

Coelodon radians **sp. n.** California, DALL U. S. Nation. Mus. Proc. **49** p. 450.

Cuspidaria annandalei **sp. n.** E. India, PRESTON Rec. Ind. Mus. **11** p. 308; *C.*

brazilicnsis Off Rio de Janeiro, *C.* (*Cardiomya*) *simillima* **spp. n.** Off Rio de Janeiro and West of Falkland Isds. SMITH Brit. Ant. Exp. **2** pp. 93, 104.

†*Cuspidaria hannibali* **sp. n.** California Eocene, DICKERSON Univ. Cal. Pub. Bull. Dept. Geol. **8** p. 129.

Cyathodonta with *C. dubiosa, lucasana, pedroana* W. Coast of N. America; *C. galapagana* Galapagos Isds; *C. cruziana* West Indies **spp. n.** DALL U. S. Nation. Mus. Proc. **49** pp. 444–447.

†*Edmondia* with *E. crassa* **var. n.** *symmetrica* Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 81–82.

Foveadens panamensis **sp. n.** Panama, DALL U. S. Nation. Mus. Proc. **49** p. 451.

Kennerlyia with *K. granulata, convexa* W. Coast N. America; *K. patagonica* W. Coast Patagonia **spp. n.** DALL U. S. Nation. Mus. Proc. **49** pp. 448–450.

Lyonsia gouldi **nom. n.** for *Osteodesma nitidum*, Gould; *L. fretalis* **sp. n.** Straits of Magellan, DALL U. S. Nation. Mus. Proc. **49** pp. 452–454.

Lyonsiidae DALL **101.**

†*Maminka ? suecica* **sp. n.** Sweden Silurian, HEDE Lund Univ. Arsskr. N.F. **11** Afd. 2 No. 6 p. 33.

Pandoridæ DALL **101.**

Periplomatidæ DALL **101.**

Thracia with *T. beringi* Bering Sea; *T. challisiana, diegensis, colpoica* W. Coast N. America **spp. n.** DALL U. S. Nation. Mus. Proc. **49** pp. 442–444; *T. villosiuscula* (Macgill.) IREDALE **209.**

†*Thracia abendanoni* **sp. n.** Célèbes Cretaceous, DOLLFUS Paléont. de Célèbes p. 8; *Thracia* DALL **101.**

Thraciidæ DALL **101.**

INCERTAE SEDIS.

†*Arcoptera indica* **sp. n.** Trias Kashmir, DIENER Pal. Ind. **5** (1) p. 87.

†*Cardiomitra orbicularis* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **598** p. 21.

Cyamiomactra HEDLEY **186.**

†*Cypricardinia rugosa* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **598** p. 20.

Pronuncula kermadecensis **sp. n.** Kermadec Isds., OLIVER Trans. N. Z. Inst. **47** p. 550.

†*Sphenotis* with *S. vulgaris, cultellus, constrictus* **spp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** pp. 77–80.

†*Stolidotus* **gen. n.** near *Pholadomya*, *S. siluricus*, **sp. n.**, Sweden Silurian, HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 p. 34.

Cephalopoda.

GENERAL.

Cephalopoda, BERRY **32**; PFEFFERKORN **307.**

†*Cephalopoda*, BUCKMAN **53**; FOSSA-MANCINI **137**; FRECH **141.**

CEPHALOPODA.

†*Acanthoceras*, YABE **448.**

†*Acrochordiceras, alternans, foltzense, inyoense*, **spp. n.** Triassic N. America, SMITH U. S. Geol. Surv. Prof. Paper No. **83** pp. 38–40.

†*Actinocamax*, NEWTON **284.**

†*Agathiceras sundaïcum* **sp. n.** Letti Perm., HANIEL Jaarb. Mynw. Ned. Ind. Batavia **43** p. 164.

†*Aptychus solidum* **sp. n.** Carboniferous Arkansas, GIRTY U. S. Geol. Surv. Bull. **593** p. 132.

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IX. ARTHROPODA

(GENERAL)

No memoirs requiring notice under this heading have been met with this year.

EDITOR.

X. CRUSTACEA

ARRANGED BY

W. T. CALMAN, D.Sc.

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Galathea mauritiana p. 200 figs., BOUVIER Bul. sci. Fr. Belg. **48.**—*G. elegans* p. 83, *inflata* **sp. n.** p. 85, *minuta* **sp. n.** p. 87, Torres Straits figs., POTTS Washington Carnegie Inst. Pap. Dept. Mar. Biol. **8.**—*G.* spp., DONS **67.**—*G.* spp., PESTA, **148.**

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Calcinus nitidus var. n. *australis* Mauritius p. 207 figs., BOUVIER Bul. sci. Fr. Belg. **48.**

Clibanarius olivaceus **sp. n.** India p. 26 fig., HENDERSON Rec. Ind. Mus. Calcutta **11.**

Eupaguridae fam. n. p. 131, TERAO Dobuts. Z. Tokyo **27.**

Eupogurus variabilis var. n. *Charcoti* N. Atlantic p. 217, BOUVIER Bul. Muséum Paris **1914.**

Ostraconotidae fam. n. p. 131, TERAO Dobuts. Z. Tokyo **27.**

Pagurus scutellatus p. 209 figs., BOUVIER Bul. sci. Fr. Belg. **48.**

Paguristidae fam. n., p. 131, TERAO Dobuts. Z. Tokyo **27.**

HIPPIDEA.

[Vacant.]

Macrura.

NEPHROPSIDEA.

ADAMS, **2.**—EKMAN, **70.**—FARKAS, **73.**—FASTEN, **76.**—HASE, **91.**—KEIM, **110.**—PESTA, **149.**—PRELL, **155.**—SCHMIDT, **163.**—SPURGEON, **170.**

Astacus nigrescens subsp. n. *fortis* California p. 360, *gambelii* subsp. n. *connectens* Idaho-Oregon p. 360, *pallipes* subsp. n. *italicus* Italy p. 361 figs., FAXON Mem. Mus. Comp. Zool. Harvard **40.**

Cambarus clarkii subsp. n. *paenninsulanus* Florida p. 369, *viae-viridis* **sp. n.** Arkansas p. 370, *spinosus* subsp. n. *Gulielmi* Georgia p. 375, *validus* **sp. n.** Alabama p. 382, *bartonii* subsp. n. *carinirostris* Virginia p. 384 *bartonii* subsp. n. *veteranus* Virginia p. 389, *bartonii* subsp. n *asperimanus* North Carolina p. 391, *bartonii* subsp. n. *laevis* Indiana p. 392, *graysoni* **sp. n.** Kentucky p. 393 figs., FAXON t.c.

Enoplometopus occidentalis p. 182 figs., BOUVIER Bul. sci. Fr. Belg. **48.**

Paranephrops spp. p. 295 figs., ARCHEY Trans. N. Zeal. Inst. **47.**

Parastacus araucanius **sp. n.** Chile p. 353 fig., FAXON Mem. Mus. Comp. Zool. Harvard **40.**

†*Pseudastacus* sp. Cretaceous, Italy p. 45 fig., D'ERASMO Palaeontogr. Ital. Mem. **21.**

ERYONIDEA.

Eryonicus larva of *Polycheles* p. 372, SUND Nature **95.**—*Eryoneicus* p. 1, *Richardi* **sp. n.** Atlantic p. 6, BOUVIER Bull. Inst. océan. Monaco **309.**

Polycheles intermedius **sp. n.** Atlantic p. 599, BALSS Zool. Anz. **44.**

LORICATA.

BOUVIER, **25.**—STEBBING, **172.**

Palinurellus Wieneckii p. 186 fig., BOUVIER Bul. sci. Fr. Belg. **48.**

Panulirus interruptus p. 18, ALLEN California Fish and Game Comm. Fish Bull. **1.**

Scyllarides Haani p. 191, *squamosus* p. 192 figs., BOUVIER Bul. sci. Fr. Belg **48.**

Scyllarus paradoxus p. 47, BOUVIER Bull. Mus. Paris **1915.**—*S. Thiriouxi* p 188 figs., BOUVIER Bul. sci. Fr. Belg. **48**

THALASSINIDEA.

STEBBING, **172.**

Axius (*Neaxius*) *acanthus* var. *mauritianus* p. 196 figs., BOUVIER Bul. sci. Fr. Belg. **48.**—*Axius* (*Neaxius*) *laevis* p. 182, BOUVIER Bul. Mus. Paris **1915.**

Callianassa (*Callichirus*) *maxima* p. 252 figs., KEMP Mem. Ind. Mus. **5.**—*C. italica* **sp. n.** Naples p. 64 figs., PARISI Monitore zool. ital. **26.**

Scytoleptus serripes p. 198 figs., BOUVIER Bul. sci. Fr. Belg. **48.**

Thalassina anomala p. 445, var. n. *squamifera* Malay Archip. p. 447, var. *gracilis* p. 452 figs., DE MAN Zool. Jahrb. Abt. Syst. **38.**

Upogebia Talismani **sp. n.** Cape Blanco p. 184, BOUVIER Bul. Mus. Paris **1915.**—*U.* (*Upogebia*) *heterocheir* **sp. n.** Chilka Lake p. 257 figs., KEMP Mem. Ind. Mus. **5.**

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COWLES, **54.**—MONAGHAN, **129.**—PEARSE, **143.**

Acanthephyra braueri Atlantic p. 594, *kempii* Indian Ocean p. 595, *valdiviae* Indian Ocean p. 595, **spp.. n.**, BALSS Zool. Anz. **44.**—*A. purpurea* var. *multispina* p. 433, SZÜTS Zool. Anz. **45.**

Aegeon rugulosum **sp. n.** Indian Ocean p. 210, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Alpheidae, Plates to Alpheidae of Siboga-Expedition, DE MAN, **124.**

Alpheus crassimanus p. 299, *malabaricus* p. 301, *paludicola* **sp. n.** Chilka Lake p. 303 figs., KEMP Mem. Ind. Mus. **5.**—*A. notabilis* p. 80, *dissodontonotus* p. 83, **spp. n.** S. Africa figs., STEBBING Ann. S. Afric. Mus. **15.**

Amphipalaemon gardineri, cooperi, **spp. n.** Maldive Is. p. 209, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Athanas polymorphus **sp. n.** Chilka Lake p. 295 figs., KEMP Mem. Ind. Mus. **5.**

Atya molluccensis synon. p. 147 figs., COWLES Philippine J. Sci. **10.**—*A. brevirostris* p. 405, *molluccensis* p. 407 figs., DE MAN Zool. Jahrb. Abt. Syst. **38.**

Bathypalaemonella **gen. n.** (*Palaemonidae*) p. 597, *zimmeri* **sp. n.** Indian Ocean p. 598, BALSS Zool. Anz. **44.**

Caridina nilotica var. *bengalensis* p. 307, *propinqua* p. 309, KEMP Mem. Ind. Mus. **5.**—*C. rouxi* **sp. n.** p. 387 *demani* p. 392, *cognata* **sp. n.** p. 397 figs., New Guinea, DE MAN Zool. Jahrb. Abt. Syst. **38.**

Corniger **subg. n.** of *Periclimenes* p. 207, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Cristiger **subg. n.** of *Periclimenes* p. 207, BORRADAILE t.c.

Ensiger **subg. n.** of *Periclimenes* p. 207, BORRADAILE t.c.

Exhippolysmata **gen. n.** *tugelae* **sp. n.** S. Africa p. 94 figs., STEBBING Ann. S Afric. Mus. **15.**

Falciger **subg. n.** of *Periclemenes* p. 207, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Gnathophyllum elegans, ceratophthalma, p. 85 figs., BALSS Zool. Anz. **45.**

Heterocarpus unicarinatus, affinis, **spp. n.** Indian Ocean p. 208, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Hymenocera ceratophthalma ref. to *Gnathophyllum* p. 85, BALSS Zool. Anz. **45.**

Leander rev. of European spp. p. 115, *squilla* var. n. *intermedia* p. 127 figs., DE MAN Tijdschr. Ned. Dierk. Ver. **14.**—*L. lepidus* **sp. n.** New Guinea p. 410 figs., DE MAN Zool. Jahrb. Abt. Syst. **38.**—*L. peringueyi* p. 75, *gilchristi* p. 76, **spp. n.** S. Africa, STEBBING Ann S. Afric. Mus. **15.**

Leptochela aculeocaudata p. 311 figs., KEMP Mem. Ind. Mus. **5.**

Lysmata affinis **sp. n.** Indian Ocean p. 209, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Lysmatella **gen. n.** (*Hippolytidae*) p. 206, *prima* **sp. n.** Maldive Is. p. 209, BORRADAILE t.c.

Mimocaris hastatoides **sp. n.** Cameroons p. 596, BALSS Zool. Anz. **44.**

Nika mediterranea **sp. n.** Naples p. 65 PARISI Monitore zool. ital. **26.**

Nikoides maldivensis **sp. n.** Maldive Is. p. 209, BORRADAILE Ann. Mag. Nat. Hist. **15.**

Ogyrides striaticauda **sp. n.** Chilka Lake p. 284 figs., KEMP Mem. Ind. Mus. **5.**

Palaemon lamarrei p. 265, *malcolmsoni* p. 266, *rudis* p. 268, *scabriculus* p. 272, KEMP Mem. Ind. Mus. **5.**—*P.* (*Eupalaemon*) *lar* p. 415, *weberi* p. 420, *acanthosoma* p. 427, *dispar* p. 435, (*Macrobrachium*) *oenone* ? p. 439, *placidulus* p. 444 figs., DE MAN Zool Jahrb. Abt.

Syst. **38**.—*P. delagoae* **sp. n.** S. Africa p. 74 figs., STEBBING Ann. S. Afric. Mus. **15**.

Palaemonella elegans, longirostris, **spp. n.** Indian Ocean p. 210, BORRADAILE Ann. Mag. Nat. Hist. **15**.

Palaemonetes australis **sp. n.** W. Australia p. 571 figs., DAKIN Proc. Zool. Soc. **1915**.—*P. natalensis* **sp. n.** S. Africa p. 78 figs., STEBBING Ann. S. Afric. Mus. **15**.

Pandalus (*Plesionica*) *gracilis* **sp. n.** Indian Ocean p. 208, BORRADAILE Ann. Mag. Nat. Hist. **15**.

Parapandalus zur strasseni **sp. n.** Indian Ocean p. 597, BALSS Zool. Anz. **44**.

Paratypton **gen. n.** (*Pontoniidae*) p. 83, *siebenrocki* **sp. n.** Red Sea, Samoa, p. 84 fig., BALSS Zool. Anz. **45**.

Periclimenaeus **gen. n.** (*Pontoniinae*) p. 207, *fimbriatus, robustus,* **spp. n.** Indian Ocean p. 213, BORRADAILE Ann. Mag. Nat. Hist. **15**.

Periclimenes (*Cristiger*) *frater, incertus,* p. 210, *commensalis,* (*Corniger*) *cornutus, ceratophthalmus,* (*Falciger*) *nilandensis, affinis, dubius,* p. 211, *compressus, brocketti, pottsi, suvadivensis, seychellensis,* p. 212, *kolumadulensis* p. 213, **spp. n.** Indo-Pacific, BORRADAILE Ann. Mag. Nat. Hist. **15**.—*P. demani* **sp. n.** Chilka Lake p. 279 figs., KEMP Mem. Ind. Mus. **5**.

Philocheras megalocheir **sp. n.** S. Africa p. 71 figs., STEBBING Ann. S. Afric. Mus **15**.

Phyllognathia **gen. n.** (*Guathophyllidae*) for *Hymenocera ceratophthalma* Balss p. 206, BORRADAILE Ann. Mag. Nat. Hist. **15**.

Pontonia maldivensis **sp. n.** Maldive Is. p. 213, BORRADAILE t.c.

Pontoniopsis **gen. n.** (*Pontoniinae*) p. 207, *comanthi* **sp. n.** Torres Straits, BORRADAILE t.c.

Pontophilus hendersoni **sp. n.** Chilka Lake p. 261 figs., KEMP Mem. Ind. Mus. **5**.

Spirontocaris pax **sp. n.** S. Africa p. 91 figs., STEBBING Ann. S. Afric. Mus. **15**.—*S.* spp., DONS **67**.

Synalpheus brucei **sp. n.** p. 76, *comatularum* p. 80, Torres Straits figs., POTTS Washington Carnegie Inst. Pap. Dept. Mar. Biol. **8**.—*S. anisocheir* **sp. n.** S. Africa p. 86 figs., STEBBING Ann. S. Afric. Mus. **15**.

Thalassocaris affinis, maldivensis, **spp. n.** Maldive Is. p. 208, BORRADAILE Ann. Mag. Nat. Hist. **15**.

Thor maldivensis **sp. n.** Maldive Is. p. 208, BORRADAILE t.c.

Urocaridella **gen. n.** (*Pontoniinae*) p. 207, *gracilis* **sp. n.** Maldive Is. p. 210, BORRADAILE t.c.

Urocaris indica **sp. n.** Chilka Lake p. 275 figs., KEMP Mem. Ind. Mus. **5**.

PENAEIDEA.

Notes on many spp., PESTA, **147**.

Lucifer hanseni p. 324 figs., KEMP Mem. Ind. Mus. **5**.—*L. bonitensis* (loc. ?), *clausi* Mediterranean *faxoni* Atlantic, *affinis* Atlantic, Pacific & Indian Oceans, *batei* Atl. & Pac., p. 228, *inermis* Melbourne p. 229, **spp. n.**, BORRADAILE Ann. Mag. Nat. Hist. **16**.

Metapenaeus mobilispinis **sp. n.** W. Indies p. 117, RATHBUN Washington Proc. Biol. Soc. **28**.

Parapenaeopsis atlantica **sp. n.** Cameroons p. 593, BALSS Zool. Anz. **44**.

Penaeus carinatus p. 317 figs., *indicus* p. 319, KEMP Mem. Ind. Mus. **5**.

Sergestes prehensilis NAKAZAWA Rep. Imper. Fish. Inst. Tokio **11** pt. 2 p. 1 figs.—*S. prehensilis* p. 622 figs., NAKAZAWA and TERAO Dobuts. Z. Tokyo **27**.

Solenocera comatus **sp. n.** S. Africa p. 67 figs., STEBBING Ann. S. Afric. Mus. **15**.

STENOPIDEA.

[Vacant.

EUPHAUSIACEA.

TAUBE, **179**.

Euphausia pacifica p. 81 figs., HANSEN U.S. Nat. Mus. **48**.

Nematoscelis atlantica p. 313 figs., ZIMMER Mitt. zool. Stat. Neapel **22**.

Tessarabrachion oculatum p. 103 figs., HANSEN Proc. U.S. Nat. Mus. **48**.

Thysanoëssa longipes p. 87, *spinifera* p. 90, *inermis* p. 93, figs., HANSEN t.c.

Thysanopoda cornuta p. 65 figs., HANSEN t.c.

MYSIDACEA.

BJÖRCK, **16.**—EKMAN, **70.**

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Gastrosaccus muticus p. 152, *simulans* p. 155, **spp. n.** India, figs., TATTERSALL Mem. Ind. Mus. **5.**

Leptomysis apiops p. 319, *megalops* **sp. n.** Naples p. 320 figs., ZIMMER Mitt. zool. Stat. Neapel. **22.**

Mysideis parva **sp. n.** Naples p. 323 figs., ZIMMER t.c.

Mysidella typica p. 327 fig., ZIMMER t.c.

Rhopalophthalmus egregius p. 151, TATTERSALL Mem. Ind. Mus. **5.**

Siriella spp. p. 315 figs., ZIMMER Mitt. zool. Stat. Neapel **22.**

SYNCARIDA.

Bathynella natans p. 147 figs., CHAPPUIS Zool. Jahrb. Abth. Syst. **40.**

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CARRIÉ, **37.**—PETRICEVIC, **150.**

Gonodactylus (*Protosquilla*) *Guerini* p. 313 fig., BOUVIER Bul. sci. Fr. Belg. **48.**—*G. proximus* **sp. n.** Philippines p. 183 figs., KEMP Philippine J. Sci. **10.**

Lysiosquilla multifasciata p. 175, *vicina* p. 176 figs., KEMP t.c.

Pseudosquilla megalophthalma p. 172 fig., KEMP t.c.

Squilla fallax p. 308 figs., BOUVIER Bul. sci. Fr. Belg. **48.**—*S. scorpio* var. *immaculata* larvae p. 193 figs., KEMP Mem. Ind. Mus. **5.**

CUMACEA.

BJÖRCK, **16.**

Campylaspis vitrea, horridoides **sp. n.** Mediterranean, p. 32 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Diastylis processifera p. 29, *Stebbingi* p. 31, **spp. n.** Mediterranean, figs., STEPHENSEN t.c.

TANAIDACEA.

BJÖRCK, **16.**

Apseudes graciloides **sp. n.** Mediterranean p. 26 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

ISOPODA.

ALLEE, **3.**—ALLEE and TASHIRO, **4.**—BJÖRCK, **16.**

ASELLOTA.

EKMAN, **70.**

Desmosoma chelatum **sp. n.** Mediterranean p. 22 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Ianirella Bonnierii **sp. n.** Mediterranean p. 20 figs., STEPHENSEN t.c.

Munneurycope tjalfiensis p. 23 figs., STEPHENSEN t.c.

PHREATOICIDEA.

[Vacant.]

FLABELLIFERA.

Aegathoa buitendijki **sp. n.** Java p. 101 figs., NIERSTRASZ Zool. Mededeel. **1.**

Anilocra recta **sp. n.** Java p. 83 figs., NIERSTRASZ t.c.

Cirolana lineata **sp. n.** Torres Straits p. 89 figs., POTTS Washington Carnegie Inst. Pap. Dept. Mar. Biol. **8.**

Gnathia Thori **sp. n.** Mediterranean p. 8 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Gnathiidae list of spp. p. 7, STEPHENSEN t.c.

Livoneca parva **sp. n.** New Guinea p. 98 figs., NIERSTRASZ Zool. Mededeel. **1.**

Nerocila schläderi **sp. n.** New Guinea p. 76 figs., NIERSTRASZ t.c.

Rocinella (sic) *latis* **sp. n.** on *Lates*, Calcutta, p. 321 figs., SOUTHWELL Rec. Ind. Mus. **11.**

Syscenus infelix p. 10 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Telotha indica **sp. n.** Java p. 94 figs., NIERSTRASZ Zool. Mededeel. **1.**

VALVIFERA.

COLLINGE, **52.**—EKMAN, **70.**

Astacilla (?) *Bonnierii* **sp. n.** N. Atlantic p. 18, *Deshayesii* p. 20 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Idotea hectica p. 163 figs., COLLINGE Ann. Mag. Nat. Hist. **16.**—*I. metallica* p. 12 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Stenosoma capito p. 15, *acuminatum*, *appendiculatum*, p. 17 figs., STEPHENSEN t.c.

EPICARIDEA.

Heterophryxus appendiculatus p. 25 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

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Arhina barkulensis **sp. n.** S. India p. 147 figs., COLLINGE Rec. Ind. Mus. **11.**

Armadillidium nitidulus **sp. n.** Spain p. 463 figs., COLLINGE Edinburgh Trans. R. Soc. **51.**

Calycuoniscus **gen. n.** *bodkini* **sp. n.** Brit. Guiana p. 509 figs., COLLINGE J. Linn. Soc. **32.**

Cubaris suteri **sp. n.** Auckland p. 425 figs., CHILTON J. Linn. Soc. **32.**—*C. invenustus* **sp. n.** Spain p. 464 figs., COLLINGE Edinburgh Trans. R. Soc. **51.**—*C. solidulus* p. 149, *nacrum* p. 150, *granulatus* p. 151, **spp. n.** S. India figs., COLLINGE Rec. Ind. Mus. **11.**—*C. brevispinis* **sp. n.** Colombia p. 543 figs., PEARSE Proc. U.S. Nat. Mus. **49.**

Deto echinata p. 440, *acinosa* p. 441, *armata* p. 443, *marina* p. 444, *aucklandiae* p. 445, *bucculenta* p. 449, figs., CHILTON J. Linn. Soc. **32.**

Ennurensis **gen. n.** *hispidus* **sp. n.** Madras p. 143 figs., COLLINGE Rec. Ind. Mus. **11.**

Haplophthalmus asmanicus **sp. n.** Tasmania, p. 424 fig., CHILTON J. Linn. Soc. **32.**

Hemiporcellio **gen. n.** *carinatus* p. 145, *hispidus* p. 146, **spp. n.** S. India figs., COLLINGE Rec. Ind. Mus. **11.**

Leucocyphoniscus Solarii **sp. n.** Italy p. 160 figs., BRIAN Genova Ann. Mus. Civ. st. nat. **6.**

Ligyda richardsonae **sp. n.** Colombia p. 549 figs., PEARSE Proc. U.S. Nat. Mus. **49.**

Lygia exotica p. 47, TERAO Dobuts. Z. Tokyo **27.**

Minca **gen. n.** (*Armadillididae*) p. 544, *ruthveni* **sp. n.** Colombia p. 546 figs., PEARSE Proc. U.S. Nat. Mus. **49.**

Notoniscus **gen. n.** (*Trichoniscidae*) *helmsii* p. 418, *australis* p. 421 figs., CHILTON J. Linn. Soc. **32.**

Periscyphis gigas **sp. n.** Travancore p. 148 figs., COLLINGE Rec. Ind. Mus. **11.**

Philoscia tenuissima **sp. n.** Madras p. 145 figs., COLLINGE t.c.—*P. culebrae* p. 541 fig., *walkeri* **sp. n.** Colombia p. 541 figs., PEARSE Proc. U.S. Nat. Mus. **49.**

Porcellio batesoni p. 461, *explanatus* p. 462, **spp. n.** Spain, figs., COLLINGE Edinburgh Trans. R. Soc. **51.**

Sphaeroniscus gaigei p. 546, *colombiensis* p. 547, **spp. n.** Colombia figs., PEARSE Proc. U.S. Nat. Mus. **49.**

AMPHIPODA.

BJÖRCK, **16.**—ZÁVADSKÝ, **199.**

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Chevreuxiella **gen. n.** (? *Lysianassidae*) *metopoides* **sp. n.** N. Atlantic p. 40 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Corophium rotundirostre **sp. n.** Mediterranean p. 52 figs., STEPHENSEN t.c.—*C. curvispinum* varr. p. 56 figs., WUNDSCH Berlin SitzBer. Ges. natf. Freunde **1915.**

Cyphocaris richardi p. 37 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Cyclotelson **gen. n.** (*Amphilochidae*) p. 87, *purpureum* **sp. n.** Torres Straits p. 88 figs., POTTS Washington Carnegie Inst. Pap. Dept. Mar. Biol. **8.**

Elasmopus subcarinatus p. 321, *neglectus* **sp. n.** p. 326, *bollonsi* **sp. n.** p. 328, New Zealand figs., CHILTON Trans. N. Zeal. Inst. **47.**

Haploops dellavallei ? p. 44 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Hippomedon tunisiacus **sp. n.** Mediterranean p. 36 figs., STEPHENSEN t.c.

Maera schmidtii **sp. n.** Mediterranean p. 48 figs., STEPHENSEN t.c.

Nototropis vedlomensis, *guttatus*, p. 46 figs., STEPHENSEN t.c.

Parorchestia luzonensis p. 253, *lagunae* p. 254, **spp. n.** Luzon figs., BAKER Philippine J. Sci. **10.**

Stenopleura atlantica p. 45 figs., STEPHENSEN Rep. Dan. Oceanogr. Exp. **2.**

Thoriella **gen. n.** (*Lysianassidae*) *islandica* **sp. n.** N. Atlantic p. 39 figs., STEPHENSEN t.c.

HYPERIIDEA.

[Vacant.]

CAPRELLIDEA.

LA FOLLETTE, **116.**—STEPHENSEN, **173.**

Aeginella hirsuta **sp. n.** California p. 57 figs., LA FOLLETTE J. Ent. Zool. Claremont Cal. **7.**

Caprella uniforma **sp. n.** California p. 56 figs., LA FOLLETTE t.c.

Paedaridium breve **sp. n.** California p. 58 figs., LA FOLLETTE t.c.

PHYLLOCARIDA.

HILTON, **98.**—LA FOLLETTE, **115.**

†*Cryptocaris scanica* **sp. n.** Sweden, Silurian p. 47 figs., HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6.

BRANCHIOPODA.

PHYLLOPODA.

BRAEM, **29.**—BRAUER, **30.**—DODDS, **66.**—EVANS, **71.**—GRAETER, **84.**—HESSE, **95, 96.**—LUNDBLAD, **121.**—WECKEL, **192.**

Artemia system, ABONYI, **1.**

Caenestheriidae monograph, DADAY, **58.**

Caenestheriella educta **sp. n.** Palestine p. 127, *ehrenbergi* varr. n. *dimorpha* p. 155, *michaelseni* p. 159 figs DADAY Ann. Sci. nat. zool. **20.** 1914-15

Eocyzicus klunzingeri (Wolf MS.) Khartoum p. 197, *irritans* (Wolf MS.) Khartoum p. 218, *zugmayeri* Baluchistan p. 228, **spp. n.** figs., DADAY t.c.

Gymnocyzicus **subg. n.** of *Cyzicus* p. 236, DADAY t.c.

†*Leaia tricarinata* p. 200 figs., BOLTON Trans. Manchester Geol. Soc. **34.**

Streptocephalus coloradensis **sp. n.** Colorado p. 97 figs, DODDS Proc. U.S. Nat. Mus. **49**

Trichocyzicus **subg. n.** of *Cyzicus* p. 236, DADAY Ann. Sci. nat. zool. **20.**

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Alona intermedia p. 6 figs., HERR Intern. Rev. Hydrobiol. **6** biol. Suppl. H. 3 vi.

Bosmina coregoni p. 77 figs., RÜHE Arch. Hydrobiol. **10.**

Chydorus ovalis p. 3 figs., HERR Intern. Rev. Hydrobiol. **6** biol. Suppl. H. 3 vi.

Daphne atkinsoni p. 100 fig., DE LA VAULX Paris Bull. Soc. Zool. **40.**

Daphnia pulex, longispina, Variabilität p. 133 figs., KAPTEREV Journ. sect. zool. Soc. nat. **2.**

Penilia schmackeri p. 350 figs., LEDER Zool. Anz. **45.**

Rhynchotalona falcata p. 1 fig., HERR Intern. Rev. Hydrobiol. **6** biol. Suppl. H. 3 vi.

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Acartia (*Paracartia*) *africana* S.W. Africa p. 395, *pacifica* Pacific p. 397 figs. **spp. n.**, STEUER t.c.

Acartiura **subg. n.** of *Acartia* p. 394, STEUER t.c.

Acontiophorus scutatus p. 110 figs. SARS Crust. Norw. **6.**

Arctopontius **gen. n.** (*Dyspontiidae*) *expansus* **sp. n.** Norway 122 figs. SARS t.c.

Artotrogus orbicularis p. 133 figs., SARS t.c.

Ascidicolidae p. 143 figs., CHATTON et BRÉMENT Paris Bul. Soc. Zool. **40.**

Ascomyzon asterocheres p. 85, *Lilljeborgi* p. 87, *Boecki* p. 88, *simulans* p. 89, *latum* p. 90, *parvum* p. 92, figs., SARS Crust. Norw. **6.**

Brachiella gulosa N. Atlantic p. 705, *mitrata* N. Atl. p. 709, *pinguis* N. Atl. p. 710, *nitida* N. Pacific p. 711, **spp. n.** figs., WILSON Proc. U.S. Nat. Mus. **47.**

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Brementia **gen. n.** (*Ascidicolidae*) type *balneolensis* **sp. n.** in *Leptoclinum*, Banyuls, p. 129 figs., CHATTON et BRÉMENT Paris Bul. Soc. Zool. **40.**

Brianella **gen. n.** (*Lernaeopodidae*) type *corniger* **sp. n.** Chile p. 647 figs., WILSON Proc. U.S. Nat. Mus. **47.**

Cancerilla tubulata p. 139 figs., SARS Crust. Norw. **6.**

Canthocamptus schröderi **sp. n.** Victoria Nyanza p. 263 figs., VAN DOUWE Zool. Anz. **45.**—*C. fuhrmanni* p. 167, *aculeatus* p. 170, figs. **spp. n.** Colombia, THIÉBAUD Neuchâtel Mem. Soc. Sci. Nat. **5.**

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Collocheres gracilicauda p. 101 figs., SARS Crust. Norw. **6.**

Cribropontius Normani p. 130 figs., SARS t.c.

Cryptopontius brevifurcatus p. 120 figs., SARS t.c.

Cyclops serrulatus, LONES Zoologist **19** p. 413 figs.—*C. leuckarti* var. n. *longiseta* Colombia, THIÉBAUD Neuchâtel Mem. Soc. Sci. Nat. **5** p. 165 figs.

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Diaptomus arapahoensis **sp. n.** p. 99, *lintoni* p. 101, *shoshone*, *leptopus* var. *piscinae*, p. 102, figs. Colorado, DODDS Proc. U.S. Nat. Mus. **49.**—*D. tatricus* p. 456, HARTMANN Zool. Anz. 45.—*D marshi* **sp. n.** Guatemala p. 803 figs., JUDAY Trans. Wis. Acad. Sci. **17.**—*D. shoshone* var. *wardi* p. 23, *pribilofensis* **sp. n** Pribylof Is. p. 25, figs., JUDAY & MUTTKOWSKI Bull. Wis. Nat. Hist. Soc. **13.**—*D. virginiensis* **sp. n.** Virginia p. 457, *tyrelli* p. 459, figs., MARSH Proc. U.S. Nat. Mus. **49.**—*D. colombiensis* **sp. n.** Colombia, THIÉBAUD Neuchâtel Mem. Soc. Sci. Nat. **5** 1914 p. 161 figs.

Dyspontius striatus p. 118 figs., SARS Crust. Norw. **6.**

Echinocheres violaceus p. 93 figs., SARS t.c.

Epibrachiella **gen. n.** (*Lernaeopodidae*) type *Brachiella impudica* Nordmann p. 715, WILSON Proc. U.S. Nat. Mus. **47.**

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Euchirella intermedia p. 124, *bitumida* p. 131, **spp. n.** N. Atlantic figs., WITH t.c.

Euterpina acutifrons larvae p. 269 figs., TESCH Haarlem Verh. Visscheryonderzoek **1.**

†*Euthycarcinus* **gen. n.** p. 5 *Kessleri* **sp. n.** Trias, Saarbrücken, p. 6 figs., HANDLIRSCH Wien Verh. Zool. Bot. Ges. **64.**—*E. kessleri* p. 44, PESTA Zool. Anz. **45.**

Gaetanus ferox **sp. n.** N. Atlantic p. 111 figs., WITH Jngolf Exp. **3** Copep.

Harpacticus fulvus p. 208 figs., ISSEL Mitt. zool. Stat. Neapel **22.**

Heterocope septentrionalis **sp. n.** Pribylof Is. p. 27 figs., JUDAY & MUTTKOWSKI Bull. Wis. Nat. Hist. Soc. **13.**

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Isidicola antarctica p. 99 figs., GRAVIER Deuxième Exp. Antarct. Fr. Alcyonaires Appendice.

Isocope **gen. n.** (*Pontellidae*), *propinqua* **sp. n.** Durban p. 139 figs., BRADY Ann. Durban Mus. **1.**

Labidocera chubbi **sp. n.** Durban p. 137 figs., BRADY t.c.

Leptomyzon **gen. n.** (*Ascomyzontidae*) *elegans* p. 105 figs., SARS Crust. Norw. **6.**

Lernaeopodidae revision p. 565 figs., WILSON Proc. U.S. Nat. Mus. **47.**

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Mesocheres anglicus p. 103 figs., SARS Crust. Norw. **6.**

Metranura **gen. n.** near *Paracalanus*, *typica* **sp. n.** Durban p. 137 figs., BRADY Ann. Durban Mus. **1.**

Moraria arboricola **sp. n.** Epping Forest, p. 434 figs., SCOURFIELD J. Quek. Microsc. Cl. **12.**

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Naobranchia occidentalis **sp. n.** Alaska p. 663 figs., WILSON Proc. U.S. Nat. Mus. **47.**

Neopontius angularis p. 115 figs., SARS Crust. Norw. **6.**

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Ooneides **gen. n.** (*Ascidicolidae*) p. 136, type *amela* **sp. n.** in *Leptoclinum*, Banyuls, p. 137 figs., CHATTON et BRÉMENT Paris Bul. Soc. Zool. **40.**

Parabrachiella **gen. n.** (*Lernaeopodidae*) type *Brachiella rostrata* KRØYER p. 713, WILSON Proc. U.S. Nat. Mus. **47.**

Parartotrogus arcticus p. 136 figs., SARS Crust. Norw. **6.**

Parastenocaris fontinalis **sp. n.** Basel p. 290 figs., SCHNITTER u. CHAPPUIS Zool. Anz. **45.**

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Planktacartia **subg. n.** of *Acartia* p. 397, STEUER Zool. Anz. **45.**

Platycyclops fimbriatus p. 81 figs. SARS Crust. Norw. **6.**

Pontella natalis **sp. n.** Durban p. 138 figs., BRADY Ann. Durban Mus. **1.**

Pontellopsis speciosus **sp. n.** Durban p. 138 figs., BRADY t.c.

Probrachiella **gen. n.** (*Lernaeopodidae*) type *Brachiella anserina* Wilson p. 716, WILSON Proc. U.S. Nat. Mus. **47.**

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Salmincola **gen. n.** (*Lernaeopodidae*) type *Lernaea salmonea* Gissler p. 603, *oquassa* **sp. n.** Maine p. 611 figs., WILSON Proc. U.S. Nat. Mus. **47.**

Scolecithricella ingolfii **sp. n.** N. Atlantic p. 207 figs., WITH Ingolf Exp. **3** Copep.

Scottocalanus thorii **sp. n.** N. Atlantic p. 215 figs., WITH t.c.

Scottocheres elongatus p. 107 figs., SARS Crust. Norw. **6.**

Thomsonella **gen. n.** (*Lernaeopodidae*) type *Brachiella parkeri* Thomson p. 649, WILSON Proc. U.S. Nat. Mus. **47.**

Thysanotella **gen. n.** (*Lernaeopodidae*) for *Thysanote multifimbriata* Bassett-Smith p. 651, WILSON t.c.

Tracheliastes grandis **sp. n.** (loc. ?) p. 645 figs., WILSON t.c.

Undeuchaete superba **sp. n.** N. Atlantic p. 137 figs., WITH Ingolf Exp. **3** Copep.

Xenocoeloma **gen. n.** (*incert. sedis*) for *Saccopsis alleni* Brumpt and *brumpti* **sp. n.** Channel, in *Polycirrus*, p. 712 fig., CAULLERY & MESNIL C.R. Acad. Sci. **161.**

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Argulus foliaceus India p. 323 figs., SOUTHWELL Rec. Ind. Mus. **11.**

Dipteropeltis hirundo p. 120 figs., MOREIRA Bull. soc. ent. France **1915.**

Moreiriella **nom. n.** for *Talaus* Moreira = *Dipteropeltis* Calman, LEITAÕ A Lavura Rio Janeiro **17** Nos. 11-12 Dec. 1913 (1914) (fide MOREIRA Bull. soc. ent. France 1915 p. 120).

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†*Bollia Alexandri* **sp. n.** Silurian, Shan States p. 84 figs., REED Palaeont. Indica **6.**

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†*Entomis tuberosa* p. 164 figs., GORTANI Palaeontogr. Ital. Mem. **21.**

†*Glyptopleura rhomboidalis* **sp. n.** Carboniferous, Arkansas p. 136 fig., GIRTY Bull. U.S. Geol. Surv. **593.**

†*Kloedenella ? birmanica* **sp. n.** Silurian, Shan States p. 85 fig., REED Palaeont. Indica **6.**

Nannocandona **gen. n.** p. 19, *faba* **sp. n.** p. 20 figs. Sweden, EKMAN Zool. Beiträge aus Uppsala **3.**

†*Paraparchites nicklesi* p. 134 fig., GIRTY Bull. U.S. Geol. Surv. **593.**

Potamocypris hambergi var. n. *rotundata* Sweden p. 87 fig., ALM Zool. Beiträge aus Uppsala **4.**

†*Primitiella ? orientalis* **sp. n.** Silurian, Shan States p. 85 figs., REED Palaeont. Indica **6.**

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†*Hercolepas* **gen. n.** for *Pollicipes signatus* Aurivillius, WITHERS Geol. Mag. **2** p. 117 fig.

Lepas anatifera var. New Zealand p 288 figs., JENNINGS Trans. N. Zeal. Inst. **47.**

Lernaeodiscus spp. p. 429 figs., SMITH J. Linn. Soc. **32.**

Pollicipes spp. N. Zealand p. 291 figs, JENNINGS Trans. N. Zeal. Inst. **47.**

Thompsonia spp. p. 1 figs., POTTS Washington Carnegie Inst. Pap. Dept. Mar. Biol. **8.**

Triangulus ident. with *Lernaeodiscus* p. 429, SMITH J. Linn. Soc. **32.**

XI. ARACHNIDA

TO WHICH ARE ADDED

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ARRANGED BY

W. T. CALMAN, D.Sc.

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Adams, H. S. *vide* Tashiro, S.

Alsberg, C. L. and **Clark,** W. M. The solubility of oxygen in the serum of *Limulus polyphemus* L. and in solutions of pure *Limulus* haemocyanin. J. Biol. Chem. Baltimore **19** 1914 (503–510) 1 fig. **1**

Bolton, H. The fauna and stratigraphy of the Kent coalfield. Manchester Trans. Geol. Soc. **34** 1915 (158–213) pls. vii–ix. **2**

Chapman, F. New or little-known Victorian fossils in the National Museum. Part xviii—Some Yeringian Trilobites. Melbourne Proc. R. Soc. Vict. **28** 1915 (157–171) pls. xiv–xvi. **3**

Clark, W. M. *vide* Alsberg, C. L.

Dahmer, G. Ein Häutungsplatz von *Homalonotus gigas* A. Roem. im linksrheinischen Unterdevon. Wiesbaden Jahrb. Ver. Natk. **67** 1914 (16–21) pls. ii & iii. **4**

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Field, R. M. On the validity of the genus *Plethopeltis* (Raymond). Ottawa Nat. **29** 1915 (37–43) figs. **7**

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Hede, J. E. Skånes colonusskiffer. 1. Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6 [= Fysiogr. Sällsk. Handl. N.F. **26** No. 6] 1915 (65) 4 pls. 3 text-figs.; (English summary 54–65). **11**

Mitchell, J. *vide* Etheridge, R.

Parks, W. A. Palaeozoic fossils from a region southwest of Hudson Bay. A description of the fossils collected by Joseph B. Tyrrell, Esq., F.R.S.C., in the District of Patricia, Ontario, and in Northern Manitoba during the summer of 1912. Toronto Trans. Canad. Inst. **11** 1915 (3–95) 1 map pls. i–vii; reprinted as Toronto Univ. Studies Geol. Ser. No. 9. **12**

Reed, F. R. C. Supplementary memoir on new Ordovician and Silurian fossils from the Northern Shan States. Calcutta Geol. Surv. India Palaeont. Indica N.S. **6** No. 1 1915 (98 pp.) 12 pls. **13**

Richter, R. Neue Beobachtungen über den Bau der Trilobitengattung *Harpes*. Zool. Anz. Leipzig **45** 1914 (146–152) figs. **14**

Shuler, Ellis W. A new Ordovician Eurypterid. Amer. J. Sci. New Haven Conn. **39** 1915 (551–554) figs. **15**

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Williams, M. Y. An Eurypterid horizon in the Niagara formation of Ontario. Canada Dept. Mines Mus. Bull. geol. ser. **20** 1915 (9 pp.) 5 pls. **18**

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Acidaspis cardiolarum **sp. n.** Sweden Silurian p. 44 figs., HEDE Lund Univ. Årsskr. N.F. **11** Afd. 2 No. 6.—*A. shanensis* **sp. n.** Silurian, Shan States, p. 80 figs., REED Palaeont. Indica **6.**

Ampyx rostratus var. n. *shanensis* Ordovician, Shan Sates p. 24 figs., REED t.c.

Brachymetopus (*?*) *elegans* **sp. n.** Mississippian, Arkansas, p. 22 figs., GIRTY Bull. U.S. Geol. Surv. **598.**

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Calymene angustior **sp. n.** Silurian Victoria p. 164 figs., CHAPMAN Proc. R. Soc. Vict. **28.**—*C. birmanica* p. 44, (*Pharostoma*) *liluensis* **sp. n.** p. 46, *oldhami* **sp. n.** p. 47, figs., Ordovician, Shan States, REED Palaeont. Indica **6.**

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Idiops astutus **sp. n.** Bulawayo p. 310 fig., HEWITT Ann. Nat. Mus. **3.**—*I. gunningi* var. n. *elongatus* p. 97 fig., HEWITT Ann. Transv. Mus. **5.**—*I. parvus* **sp. n.** Orange Free State p. 71, HEWITT Rec. Albany Mus. **3.**—*I. biharicus* **sp. n.** India p. 261 figs., GRAVELY Rec. Ind. Mus. **11.**

Macrothele vidua p. 286 fig., GRAVELY t.c.

Moggridgea beyeri p. 89, *microps* p. 90, **spp. n.** S. Africa, HEWITT Ann. Transv. Mus. **5.**

Nemesia raripila, fertoni, albicomis, **spp. n.,** *corsica* **n. nom.** = *meridionalis* Simon non *Mygale meridionalis* Costa, p. 20, SIMON Arach. France **6.**

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Plesiophrictus satarensis p. 274, *raja* p. 276, *bhori* p. 277, **spp. n.** India figs., GRAVELY Rec. Ind. Mus. **11.**

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Centromerus incultus **sp. n.** Wicken Cambridge, p. 226 figs., FALCONER Naturalist London **1915.**

Cnephalocotes nesiotis Corsica p. 470, *nitidithorax* France p. 479, **spp. n.**, SIMON Bul. soc. ent. France **1914.**

Dismodicus elevatus p. 187 figs., JACKSON Proc. R. Physic. Soc. Edinburgh **19.**

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Scutigerella caldaria p. 294 figs., ARCHEY Trans. N. Zeal. Inst. **47.**

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Brachydesmus Kalischewskyi **sp. n.** Abchasien p. 370 figs., LIGNAU Petrograd Ann. mus. zool. Ac. sc. **19.**

Brachyiulus dioscriadis **sp. n.** Abchasien p. 382 figs., LIGNAU t.c.

Craspedosoma subsp. n. *saxonicum*. var. n. *saxonicum*, p. 4, var. n. *helleri*, (subsp. *genuinum*) varr. n. *weesensteinense*, *albiae*, *germanicum*, p. 5, *C. vomrathi* (subsp. *genuinum*) varr. n. *weismanni*, *vomrathi*, *arcis*, subsp. n. *zollerianum*, var. *fraxini* p. 7, var. *zollerianum*, *C. suevicum* subspp. (*genuinum*), *jurassicum*, subsp. n. *mixtum* p. 8, varr. n. *mixtum*, *suevicomixtum*, p. 9, *C. alemannicum* subspp. *danubianum*, *denticulatum*, var. *denticulatum*, var. n. *manudentatum*, subsp. *bavaricum*, p. 10, subsp. *salisburgense*, subsp. n. *doggeranum* var. *doggeranum*, var. n. *walchenium*, p. 11, subsp. *brevilobatum*, subsp. *brevidentatum* varr. n. *abbreviatissimum*, *setigerum*, p. 12, *henningsii*, *murigerum*, *brevidentatum*, *acutum*, *sulicicomes*, *clepsammidii*, p. 13. VERHOEFF Dresden SitzBer. Isis **1915.**

Cylindroiulus ruber p. 382, *hyperopherus* (?) Abchasien p. 387 figs., LIGNAU Petrograd Ann. mus. zool. Ac. sc. **19.**

Dendromonomeron lignivagum subspp. n. *madidum*, *bigleri*, Alps, p. 221 figs., VERHOEFF Zool. Anz. **45.**

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Dolichoiulus rehobotensis **sp. n.** Palestine p. 61 figs., VERHOEFF Wien Verh. ZoolBot. Ges. **64.**

Geoglomeris jurassica **sp. n.** Jura p. 21 figs., VERHOEFF Zool. Anz. **46.**

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Glomeris kallipygos Abchasien p. 369, LIGNAU Petrograd Ann. mus. zool. Ac. sc. **19.**

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Listrocheiritium styricum, *nubium*, **spp. n.** Alps, p. 130 figs., VERHOEFF Wien Verh. Zool. Bot. Ges. **65.**

Microchordeuma voigtii subsp. n. *postglaciale* p. 412, varr. n. *verbasci*, *postglaciale*, p. 413 figs., VERHOEFF Zool. Anz. **45.**

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D. SHARP

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Balfour-Browne, 82; Bedwell, 111; Day, *Bruchus seminarius*, p. 120 Ent. Mag. **51; Edwards,** *Bruchus obtectus*, p. 140 Ent. Mag. **51; Morley, 1207; Newbery & W. E. Sharp, 1258, 1259; Sharp, 1616, 1617, 1618; Walsh, 1870.**

Hymenoptera.

Donisthorpe, 448, 449; Enock, 510; Girault, 663; Lyle, 1089; Morice, 1200; Morley, 1206; Perkins, 1323.

Lepidoptera.

Durrant, 460; Frohawk, 595; Pierce & Metcalfe, 1375, 1377.

Neuroptera.

Bagnall, 71, 72; Harrison, 732; Lucas, 1064.

Diptera.

Carter, 266; Edwards, 474, 479, 480, 481; Wadsworth, 1859.

Aphaniptera.

Rothschild, 1509.

Hemiptera.

Butler, *Heteroptera*, **252; Butler,** *Aepophilus*, p. 194 Ent. Mag. **51; Edwards,** *Homoptera*, **482; Green,**

Coccidae, **686**; *Aphidae*, **Roberts, 1880**; and **Theobald, 1723, 1724, 1725.**

Psocoptera.

Bagnall, 73.

Paraneuroptera.

Lucas, 1065.

Thysanura.

Bagnall, 75; Reilly, 1454.

LOCAL LISTS.

Insecta, collectively.

Cornwall, **Bracken** pp. 285 & 286; Entomol. **48**: Cardiff, **Hallett, 714**: Caldey isld., Pembrokeshire, **Buxton** pp. 182–184 Ent. Rec. **27**: Marlborough, **Meyrick & Kirkpatrick** pp. 31–43 Rep. Marlborough Coll. Soc. **63**: Yorkshire, 1914; **Morley** pp. 105–108 Naturalist **1915**: Cumberland, **Day** pp. 190 & 238 Naturalist **1915.**

Forth Area, **Evans** (continuation) Scott. Nat. **1915** pp. 8–12 etc.: Hebrides, **Scott, 1600.**

Ireland, **Halbert, 711**; **Johnson**, p. 226 Irish Nat. **24.**—Wexford, **Cuthbert** p. 207 Irish Nat. **24.**

Coleoptera.

Exmouth, **Champion** p. 239 Ent. Mag. **51.**—Plymouth, **Keys** p. 240 T.c.—Hants, **Britten** p. 19 T.c.—New Forest, **Sharp** p. 169 T.c.—Deal, etc., **Perkins** p. 218 T.c.—Hastings, **Bennett, 117.**—Herefordshire, **Tomlin, 1749.**—S. Wales, **Allen** pp. 87 & 88 Ent. Rec. **27.**—Glamorgan, **Tomlin, 1748.**—Salisbury, **Harwood** p. 265 Ent. Mag. **51.**—Berks, **Tomlin** p. 329, **Fowler** p. 330, T.c.—Wellington Coll., **Tomlin** p. 143 T.c.—Godalming, **Latter** p. 312 T.c.—Henley-on-Thames, **Perry** p. 232 Ent. Rec. **27.**—Oxford, **Walker, 1869** and Ent. Mag. **51** pp. 169, 218, 312.—Cambridge, **MacHardy** p. 125 Ent. Mag. **51.**—Hunts, **Fowler** p. 265 T.c.—Norfolk *Carabus clathratus*, **Edwards** p. 31 T.c.—Yorkshire, **Fordham** pp. 164–167 & 198 Naturalist **1915**: *Lesteva luctuosa*; **Carter** p. 104 T.c.; **Carter & Walsh** p. 311 Ent. Mag. **51**; **Carter** p. 125 T.c.: Selby, **Fordham** p. 287 Naturalist **1915.**

Lancashire, **Tomlin** p. 329 Ent. Mag. **51.**—Durham, **Walsh** p. 292 T.c. Cumberland, **Day** p. 124 and **Fowler** p. 265 T.c.

Scotland: *Sap. scalaris*, **Evans, Grimshaw**, p. 311 Scott. Natural. **1915**; also T.c. p. 358, *S. carcharias*; **Ritchie** T.c. p. 359; **Beare** p. 43 Ent. Mag. **51.**—Aberdeen, *C. abietis*; **Stewart** p. 70 Scott. Natural. **1915.**—Nethy Bridge, **Beare** p. 329 Ent. Mag. **51.**—Hebrides, **Browne, 223.**

Cavan, **Nicholson** pp. 5–8 Irish Nat. **24.**

Hymenoptera.

Devon, **Perkins, 1325.**—Epping, **Box** p. 242 Ent. Mag. **51.**—Gravesend, **Frisby** p. 313 T.c.—Norfolk, **Atmore** p. 313 T.c.

Scotland: **Grimshaw 695.**—Perthshire, **Porritt** p. 147 Ent. Mag. **51.**—Ballater, **King** p. 287 Scott. Natural. **1915.**—Hebrides, **Evans** p. 144 & p. 264 T.c.

Ireland, *Ichneumonidae*; **Johnson** pp. 130–133 Irish. Nat. **24.**

Lepidoptera.

Guernsey, **Lowe** Ent. Rec. **27** pp. 270–273.

Devon, **Walker & Lupton** pp. 25–28 J. Torquay Nat. Hist. Soc. **2**; **Lucas** p. 150 Entomol. **48.**

Hants, **Whicher** p. 222 Entomol. **48.**—Ringwood, **Newnham** p. 125 Entomol. **48.**—Isle of Wight, **Nobbs** p. 222 Entomol. **48.**—Bexhill-on-Sea, **Stowell** p. 67 & p. 89 T.c.—Eastbourne, **Adkin** p. 246 T.c.—Gloucester, **Clutterbuck** p. 285 T.c.—Stroud, **Davis** p. 170 Entomol. **48** T.c.—Cotswolds, **Grant** Entomol. **48** pp. 214–215.—Marlborough, **Manders** p. 196 T.c.—Worcester, **Rowland-Brown** p. 197 T.c.—Taunton, **Butler** p. 123 T.c.—Minehead, **Bird** Ent. Rec. **27** pp. 76–78.—Haslemere, **Oldaker** p. 22 Entomologist **48.**—Kent, **Smith** p. 169 T.c.—Kent, etc., **Prideaux** pp. 86–88 T.c.—Camberley, **Green** Pr. ent. Soc. London **1914.**—London, **Sick** Ent. Rec. **27** p. 150 etc.—London district, etc., **James** pp. 1–7 T.c.—Camberwell, *V. antiopa*; **Morgan** p. 272 Zoologist **1915.**—Essex, **Whittle** p. 221 Entomol. **48.**—Bucks, **Frohawk** p. 266 T.c.

Chilterns, **Rowland-Brown, 1531**; **Bell** Entomol. 48 pp. 157–159; **Scott** pp. 208–212 T.c.

Surrey, **Waters** p. 170 Ent. Mag. **51**; **Saville** p. 267 Entomol. **48**.

Hunts. and Cambs., **Kenward & Kershaw** p. 20 Entomol. **48**.—Norfolk, **Heyworth** p. 125 T.c.—Lincolnsh., **Mason** p. 222 T.c.—Chester, **Arkle** p. 62 T.c.

Lancashire, **Mansbridge** Lancash. Natural. **8** pp. 50–52 and Lancashire, *Acherontia*, **Standen** pp. 351–355 T.c.

St. Anne's-on-Sea, **Williams** pp. 64–68 Entomol. **48**.

Yorkshire, **Clutten** p. 293 Ent. Mag. **51**; Scarborough, **Tetley** Ent. Rec. **27** pp. 73–76.

Scotland, **Dingwall** p. 246 Entomol. **48**.—Renfrewsh., **Stewart, 1678**.—Pollokshields, **Dalglish** Ent. Rec. **27** pp. 49–52.—Islay, **Kirk** p. 311 Scott. Natural. **1915**.

Enniskillen, **Allen** p. 14 Irish Nat. **24**.

Trichoptera.

Scotland, **Porritt** p. 146 Ent. Mag. **51**.

Diptera.

Various localities, **Bury** p. 146 Ent. Mag. **51**.—Cheshire, **Bury** p. 313 T.c.—Grange-over-sands, *Cecidomyiid.*, **Bagnall** pp. 325, 326 Lancash. Natural. **8**.

Scotland, **Carter** p. 117 Scott. Natural. **1915**; **Evans** p. 287 T.c.; **Evans** p. 331 Ent. Mag. **51**; **Huie** p. 359 Scott. Natural. **1915**.—Western isles (continuation), **Grimshaw** p. 276 Scott. Natural. **1915**.

Heteroptera.

Cornwall, **Tomlin** p. 169 Ent. Mag. **51**.—Devon, **Champion** p. 312 T.c.—Retford, **Corbett** p. 330 T.c.—Cumberland, **Murray** p. 145 T.c.—Carlisle, **Murray** p. 313 T.c.

Inverness, **Evans** p. 359 Scott. Nat. **1915**.

Homoptera.

Devon and Bath, **Edmonds** p. 220 Ent. Mag. **51**.—Lancashire and Cheshire, **Whittaker** pp. 158–160 Lancash. Natural. **8**.—Clevelands, *Psyllidae*, **Harrison** Naturalist **1915** p. 400.

Aphidae.

Kent, **Theobald** Entomol. **48** pp. 182–184.—Lancash., **Roberts, 1481**.

Coccidae.

Durham, **Harrison, 733**.

(e) Central and Eastern Europe.

Insecta, collectively.

Germany, **le Roi, 1041**; **Timm, 1747**.—Novgorod, **Kolosov, 966**.—Kiev, **Siskin, 1632**.

Coleoptera.

Denmark, **Hansen, 720-724**; **Holstebroe, 788, 789**; **Johansen, 860**; **Kryger, 978**; **Meyer, 1163**; **Rosenberg, 1506**; **West, 1918**.—Holland, **Everts, 523, 525, 526**; **Uyttenboogaart, 1815**.—Austria, **Blattny, 164**; **Heikertinger, 754, 755**.—Russia, **Bogdanov-Katjkov, 167, 168**; **Kiseritzky, 933**; **Lucnik, 1070**; **Ogloblin, 1273**; **Pliginskij, 1389, 1392**; **Roubal, 1524**; **Voroncovskij, 1853, 1855**; **Zaitzev, 1962**.

Hymenoptera.

Denmark, **Bønner, 166**; **Henriksen, 767**; **Jensen-Haarup, 853**; **Kryger, 977**.—Holland, **Smits van Burgst, 1650**; **Wasmann, 1883**.

Germany, **Hedicke, 745**.—Russia, **Birula, 153**; **Kurdiumov, 984**; **Padalka, 1298**; **Rimskij-Korsakov, 1466**; **Skorikov, 1636**; **Voroncovskij, 1854**.

Lepidoptera.

Denmark, **Jensen, 851, 852**; **Kløcker, 937**; **Knudsen, 957**; **Worm-Hansen 1954**.—Schleswig-Holstein, **Warnecke, 1877**.—Holland, **Eecke, 484**.—Bayern, **Hoffmann, 784**.—Switzerland, **Fison. 561**; and Rhone valley, p. 200 Ent, Rec. **27**; **Thomann, 1730**.—Austria, **Preissecker, 1417, 1418**; **Rebel, 1449**; **Zerny, 1966**.—Ural, **Bartel, 102**.—Bessarabien, **Miller & Zubovsky, 1180**.—Krim, **Lebedev, 1022**.—Sarepta, **Jones** p. lxxxvi Pr. ent. Soc. London **1914**.—Samara, **Krulikovsky** Rev. russe Ent. **15** pp. 218–221.

Trichoptera.

Denmark, **Petersen, 1331**.—Germany, **Ulmer, 1806**.—Russia, **Martynov, 1136, 1140**.

Neuroptera.

Denmark, **Esben-Petersen, 515, 516 ; Jørgensen, 859.**—Krim, **Pliginskij, 1388.**

Diptera.

Denmark, **Kieffer, 928 ; Lundbeck, 1083 ; Petersen, 1328.**—Netherlands, **Schmitz, 1586.**—Austria, **Strobl, 1687.** —Russia, **Marzinowsky, 1141 ;** Perm, *Asilidae* and *Syrphide*, **Stackelberg,** pp. 194–196 Rev. russe Ent. **15.**

Aphaniptera.

Holland, **Oudemans, 1296.**—Switzerland, **Rothschild, 1513.**—Russia, **Wagner 1863.**

Hemiptera.

Denmark, **Jacobsen, 837, 838.**—Netherlands, **Goot, 668.**—Oural, **Kolosoff, 964.**—Crimea, **Kiritshenko,** Rev. russe Ent. **15** p. 151.—*Heteroptera* of Don Cossacks, **Kiritshenko** Rev. russe Ent. **15** p. 320–326.

Embioptera.

Istria, **Schulze, 1595.**

Plecoptera.

Ural, **Klapálek, 934.**

Orthoptera.

Russia, **Pylinov, 1428.**

Collembola.

Rumania, **Jonescu, 874.**

(f) France.

Insecta, collectively.

Lacroix, 990 ; Meunier, 1162 ; Pyrenees, **Lucas,** Entomol. **48** pp. 49–51.

Coleoptera.

Antoine, 46 ; Carpentier, 265 ; Fagniez, 529 ; Hustache, 816 and Pyrénées. Paris Bull. soc. ent. **1914** pp. 495–496 ; **Pic,** l'Ain, Exchange **30** p. 19 etc.

Hymenoptera.

Berthoumieu, 140 ; Duchaussoy, 453 ; Pic, 1364; Pic, Exchange **31** p. 19 & Mont-Dore Ichneumoniens ; **Pic,** T.c. p. 39 & Beaujolais Ichneumonidae.

Lepidoptera.

Dupont, 457 ; Viard, 1842 and Microlépidoptères Alpes françaises ; Paris, Bul. soc. ent. **1915** p. 251.—Province, **Earl,** Ent. Rec. **27** p. 78–85.

Trichoptera.

Lacroix, 988, 989.

Neuroptera.

Lacroix, 992.

Diptera.

Coulon, 355 ; Parent, 1302 ; Van Gaver et **Pringault, 1825.**—**Pic,** Exchange **31** p. 11.

Hemiptera.

Loire-inférieure, **Péneau** pp. 81–84 Bull. Soc. Ouest France **24.**

Psocoptera.

Lacroix. 993, 994.

(g) South Europe and Mediterranean Basin.

Insecta, collectively.

Spain, **Gil,** Bol. Soc. Arragon **14** pp. 24–26 ; **Navás, 1242 ;** Salvador, Bol. Soc. Arragon **14** pp. 117–123.—Italy, **Del Guercio, 418.**

Coleoptera.

Portugal, **Corrêa de Barros, 354.**—Spain, **Bolivar, 171 ; Escalera, 517.**—Italy, **Della Beffa, 419 ; Raffray, 1439, 1440.**—North Africa, **Bedel, 109 ; Normand, 1267, Peyerimhoff, 1335, 1336, 1337, 1340, 1341.**—Turkey, **Hustache, 817.**

Hymenoptera.

Spain, **Mercet, 1153, 1154.**—Italy, **Emery, 504.**—Sicily, **Girault, 662.**—Morocco, **Dusmet, 462, 463.**

Lepidoptera.

Albarracin, **Simes,** Ent. Rec. **27** pp. 173–178.—Italy, **Stauder, 1672, 1674, Turati, 1787 ;** Majorca, **Holford,** Entomol. **48** pp. 55–57.—Algeria, **Durrant ; 459.**—**Le Cerf, 1025 ; Oberthur, 1272 ; Rothschild, 1519, 1521 ; Stauder, 1671.** —Egypt and Syria, **Reverdin, 1458, 1459.**—Egypt, **Manders, 1124.**—Constantinople, **Graves,** Ent. Rec. **27** pp. 35–40.

Trichoptera.

Egypt, **Navas, 1241.**

Neuroptera.

Spain, **Naavs, 1252.**—Algeria, **Navás, 1249.**—Egypt, **Navas, 1241.**—Syria, **Návas, 1248.**

Diptera.

Algeria, **Sergent, 1602.**—Pontische Küste, **Marcinovskij, 1130.**

Aphaniptera.

Algeria, **Jordan & Rothschild, 882.**

Hemiptera.

N. Africa, **Bergevin, 122, 124; Pic,** Hémiptères hétéroptères Algérie et Tunisie, Paris Bul. soc. ent. **1915** p. 169. —Egypt & Aden, **Distant, 434.**—

Aphidae.

Egypt, **Theobald, 1726.**

Anoplura.

Egypt, **Cummings, 389.**

Thysanoptera.

Karny, 888.—Cyprus, **Bagnall, 69.**

Paraneuroptera.

Constantinople, **Morton, 1211.**

Orthoptera.

Italy, **Ragazzi, 1443.**

Collembola.

Italy, **Caroli, 264.**

(*h*) Caucasus. West & Central Asia.

Insecta, collectively.

Plotnikov, 1394.

Coleoptera.

Socotra and Arabia, **Arrow, 56.**—Taschkent, *Platysma* sp. n., **Lučnik, 1073.**—Persia, **Lutnik, 1075.**—Turkestan, **Pic, 1362.**—Arabia, **Prell, 1419.**—F. W. Asia, **Schreiner, 1590; Suvorov, 1699.**

Hymenoptera.

Lac. Aral, **Šestakov, 1603.**—Persia, **Waterston, 1889.**

Lepidoptera.

Kirghiz Steppes, **Filipiev** Rev. russe Ent. 15 pp. 222–224.

Trichoptera.

Martynov, 1139.

Neuroptera.

Navás, 1241.

Diptera.

Christophers & Chand, 310; Syr-Darja-Gebiet, **Skrjabin, 1638.**

Aphaniptera.

Jordan & Rothschild, 883; Rothschild, 1512.

Orthoptera.

Caucasus, **Burr,** pp. 251–258 Ent. Rec. 27; **Ščelkanocev, 1566, 1567; Sugurov, 1695.**

Africa.

Insecta, collectively.

Kellogg & Ferris, 905; Navás, 1241; Silvestri, 1630; Spaeth, Speisen & Lesne, 1661.

Coleoptera.

Alluaud, 26 to 33; **Arrow, 56; Bénard, 115; Benderitter, 116; Bourgoin, 194; Brauns, 203; Chatanay, 292, 293; Desbordes, 420, 421; Garreta, 620; Gestro, 624; Grouvelle, 703; Hopkins, 800; Janson, 844; Jordan, 875; Kerremann, 915; Lesne, 1044; Olivier, 1281, 1282; Pic, 1344, 1346, 1347, 1355, 1357, 1360, 1361; Prell, 1419; Wiese, 1905.**

Hymenoptera.

Arnold, 51, 52; Cockerell, 323, 341; Ford, 573; Meade-Waldo, 1147; Morley, 1208; Rohwer, 1499; Silvestri, 1628; Szépligeti, 1716; Turner, 1795, 1798; Waterston, 1899, 1890.

Lepidoptera.

Aurivillius, 60; Bethune-Baker, 143; Dixey, 437; Fawcett, 533; Janse, 842, 843; Jordan, 878, 879; Le Cerf, 1026, 1027; Meyrick, 1172, 1175; Prout, 1422; Rothschild, 1518; Rothschild & Jordan, 1522; Swierstra, 1712; Thierry-Mieg, 1727.

Neuroptera.

Banks, 91; Esben-Petersen, 514, 516; Navás, 1244, 1245, 1246.

Diptera.

Alexander, 21; Bequaert, 119, 121; Bezzi, 146, 147, 148, 149; Carter, 267; Chubb, 310, 311; Edwards, 472,

473, 476, 477, 478; Felt, 539; Kohl, 958; Neave, 1255; Riedel, 1463; Rodhain Bequaert, 1490; Roubaud, 1526; Schmitz, 1582, 1584; Schwetz, Culicidae of Kabinda, pp. 163–168 Ann. trop. Med. 9; Stern, 1675; Villeneuve, 1848.

Aphaniptera.

Rothschild, 1510; Waterston, 1887, 1893.

Hemiptera.

Brain, 198; Distant, 533, 434, 436; Green, 688; Montandon, 1191; Theobald, 1726; Varela, 1826.

Ellipoptera (or *Anoplura*).

Ferris, 551.

Thysanoptera.

Bagnall, 68, 70; Williams, 1943.

Isoptera.

Fuller, 605; Schmitz, 1585.

Psocoptera.

Lacroix, 994.

Paraneuroptera.

Ris, 1471.

Orthoptera.

Bolívar, 172; Burr, 246; Chopard, 303, 305; Giglio-Tos, 635.

Madagascar and Mascarene Islands.

Coleoptera.

Alluaud, 29, 33; Bourgoin, 190; Chatanay, 290, 291, 294; Lameere, 1006; Pic, 1344, 1361, 1365, 1367.

Hymenoptera.

Morley, 1208.

Lepidoptera.

Joannis, 858; Meyrick, Seychelles, 172; Poulton, Pr. ent. Soc. London 1915 p. lxi; Prout, 1422; Rothschild & Jordan, 1522.

Rothschild & Jordan, Chagos Islds., 1522.

Asia, Tropical and Eastern.

Including Japan, Biluchistan, Afghanistan.

Insecta, collectively.

Kloss, J. N. H. Soc. Siam 1 p. 250 and 251; Siam zoogeographical divisions.

Annandale and Kemp, 38.

Coleoptera.

Achard, 2; Arrow, 56; Bernhauer, 137; Bogdanovatjok, 169; Borchmann, 175. Bourgoin, 186, 187, 188, 189, 191, 192; 193; Bryant, 235, 236; Champion, 280, 282; Desbordes, 422; Donckier de Donceel, 447; Garreta, 620; Gravely, 681, 683, 684; Grouvelle, 704; Houlbert, 806; Hunt, 813; Kurisaki, 985; Lameere, 1007, 1008; Lewis, Formosa, 1045; Marshall, 1132; Maulik, 1144; Pic, 1344, 1347, 1349, 1351; Tibet, 1360, 1361, 1365; Plavilstshikov, Buchara, 1385; Orchymont, Formosa, 1285; Pouillaude, 1409; Prell, 1419; Ritsema, 1477; Sharp, 1616; Spaeth, 1659; Suvorov, 1699, 1701; Uyttenboogaart, 1813.—Formosa, Lesne, 1042; Pic, 1345; Portevin, 1406; Raffray, 1441; Spaeth, 1660; Wagner, 1862.

Hymenoptera.

Ghigi, Japan, 625; Formosa, Enderein, 507; Strand, 1683.

Girault, 641, 643; Kokujev, China, Mongolia, Tibetia, 959; Morley, 1208;

Rohwer, 1496, 1498; Ruzskij, Tibet, Gobi, 1542; Sladen, 1639; Waterston, Ceylon, 1888.

Lepidoptera.

Bell, 112; Ellis, 495; Evans, Tibet, 521; Fruhstorfer, 598; Hannyngton, Kumaon *Rhopalocera*, J. Bombay, Soc. 24 p. 197; Joannis, 856.—Formosa, Mabille, 1095; Strand, 1683.—Martin, 1135; Matsumura, Japan, 1142; Meyrick, 1172; Moulton, 1216; Prout, Formosa, 1423; Reverdin, 1459; Rothschild & Jordan, 1522; Swinhoe, 1713; Thierry-Mieg, 1727; Tytler, 1804; Warren, 1880, 1881; Wileman, Formosa, 1937, 1938, 1941; Wileman, Japan, 1936, 1939.

Trichoptera.

Martynov, 1138; Nakahara, Japan, **1234.**

Neuroptera.

Esben-Petersen, 514, 516; Nakahara, Japan, **1233, 1234, 1235, 1236; Navás, 1241; Stitz, 1680.**—Formosa, **Becker, 108; Bezzi, 150; Hendel, 766; Oldenberg, 1280; Ricardo, 1461.**—Brunetti **230; Edwards, 472; Felt, 541; Hervé-Bazin, 773;** Hong Kong *Culicidae*, **Macfarlane,** p. 67 Bull. ent. Res. **6; Meyere, 1165; Schmitz, 1586.**

Aphaniptera.

Rothschild, 1512, 1514.

Hemiptera.

Bergroth, 126, 128; Distant, 432, 436; Enderlein, Formosa **506;** Green, Baluchistan, **685a; Jacobi, 835; Kiritshenko, 932; Mitsuhashi, 1185; Muir, 1220, 1221; Poppius, 1402; Rutherford, 1539, 1540.**

Thysanoptera.

Bagnall, 70.

Isoptera.

Hozawa, Japan, **812.**

Paraneuroptera.

Laidlaw, 1997 to **1000; Oguma,** Japan, **1274, 1276.**

Orthoptera.

Annandale & Kemp, 39, 41; Giglio-Tos, 635; Griffini, 694; Hancock, 716, 717; Hanitsch, 718.

Asiatic Archipelago.

Java to New Guinea, including Philippines.

Insecta, collectively.

Docters van Leeuwen und Docters van Leeuwen-Reynvaan, 442; Ritsema, 1476.

Coleoptera.

Arrow, 54, 56; Arrow, Marshall & Blzir, 57; Bernhauer, 136, 137, 138; Bickhardt, 151; Bryant, 235, 236, 237; Champion, 282; Desbordes, 422; Fleutiaux, 562; Gahan, 615; Grouvelle, 705, 706; Heller, 761, 762; Hopkins, 799, 800; Houlbert, 806; Jordan, 876, 877; Moulton, 1217; Pouillaude, 1410; Pic, 1344, 1349, 1351, 1358, 1360, 1361, 1365; Raffray, 1442.

Hymenoptera.

Cockerell, 322, 324, 325, 327, 328, 329; Crawford, 367; Forel, 571; Friese, 588; Girault, 639, 642, 646, 651, 662; Kieffer, 929; Turner, 1802.

Lepidoptera.

Bethune-Baker, 143; Chapman, 285; Eecke, 486 to **490; Fruhstorfer, 598, 601; Joicey & Noakes, 868, 869; Joicey & Talbot, 871; Jordan, 878, 879; Meyrick, 1172; Moulton, 1214, 1218; Prout, 1424; Röber, 1493; Rothschild, 1516, 1517; Rothschild & Jordan, 1522; Swinhoe, 1713; Thierry-Mieg, 1727; Warren, 1880, 1881; Watson, 1895, 1896.**

Diptera.

Alexander, 17, 21; Banks, 89; Brues, 226; **Edwards, 471, 475; Felt, 539, 541; Ludlow, 1078; Malloch, 1121; Meyers, 1164, 1166, 1167;** Papuan Culicidae list, **Scott,** p. 317 Ann. trop. Med. **9; Stanton, 1669, 1670.**

Hemiptera.

Baker, 78, 79, 80, 81; Bergroth, 126, 129; Cockerell, 335; Cockerell and **Robinson, 342, 344; Distant, 434; Jacobi, 835; Melichar, 1151; Muir, 1220, 1221; Poppius, 1402.**

Thysanoptera.

Bagnall, 68, 70, 74; Karny, 889.

Isoptera.

Dammerman, 393; Oshima, 1293.

Paraneuroptera.

Campion, 260; Laidlaw, 1001, 1002; Ris, 1472.

Orthoptera.

Burr, 246; Griffini, 691; Hancock, 716; Hanitsch, 718.

Australia and Tasmania.

Coleoptera.

Arrow, 56; Bryant, 237; Carter, 268, 269, 270; Ferguson, 546, 547,

548; Goudie, 674; Lea, 1012, 1013, 1014, 1015, 1017, 1019; Rainbow, 1444; Sloane, 1640.

Hymenoptera.

Cockerell, 322, 323, 324, 325, 326; Crawley, 372, 373; Dodd, 444; Forel, 572; Girault, 649, 650, 653, 654, 655, 656, 657, 658, 659, also Ent. News 26 p. 362; Meade-Waldo, 1149; Morley, 1208; Rohwer, 1498; Roman, 1504; Turner, 1796, 1799, 1800, 1801; Waterhouse, 1884; Wheeler, 1919, 1923.

Lepidoptera.

Lower, 1062, 1063; Meyrick, 1170, 1172; Turner, 1788, 1789, 1790.

Neuroptera.

Esben-Petersen, 511, 514; Petersen, 1330.

Diptera.

Felt, 539; Ricardo, 1460; Taylor, 1718, 1719; White, 1927.

Hemiptera.

Distant, 435; Froggatt, 592, 593; Green, 687.

Thysanoptera.

Bagnall, 68, 70; Hood, 790.

Lipoptera.

Harrison, 634.

Isoptera.

Hill, 781.

Paraneuroptera.

Campion, 261.

Aptera.

Alexander, 25.

North America.

Insecta, collectively.

Adams, 3; Davis, 402, 409; Felt, 537; Kellogg & Ferris, 904; Manee, 1126; Marcovitch, 1131; Sears, 1600a; Swaine, 1704; Thompson, 1731; Weiss, 1906 to 1910; Wells, 1913.

Coleoptera.

Beaulne, 17a; Blanchard, 163; Britton, 214; Carnochan, 262; Casey, 271, 272; Cockerell, 340; Dury, 461; Easton and others, 470; Fall, 531, 532; Fisher, 560; Frost, 596, 597, also Maine, Canad. Ent. 47 pp. 141–145; Gardner, 618; Germain, p. 309 Canad. Ent. 47; Heffenger, and Hopkins, 748; Hopkins, 800, 801; James, 840; Johnson, 866; King, 930; Knaus, 952, 953; Long, 1035, 1036; Lovell, 1061; Manee, 1125; Morse, 1209; Prell, 1419; Schaeffer, 1570, 1572; Smith, 1646, 1648; Swaine, 1703; Van Dyke, 1823, 1824; Wallis, Manitoba water-beetles, pp. 169–174 Canad. Ent. 47; †Wickham, 1932.

Hymenoptera.

Banks, 90; Baumberger, 104; Beutenmuller, 144, 145; Cockerell, 322, 324, 327, 330, 331, 338; Crawford, 364, 365, 366, 368, 369, 370, 371; Crosby & Matheson, 382; Cushman, 392; Ellis, 496; Franklin, 580; Gahan, 613; Ghigi, 625; Girault, 640, 641, 642, 644, 645; Greene, 689; Leonard & Crosby, 1040; Morley, 1208; Merrill, 1156; Rohwer, 1497, 1498, 1499, 1500, 1502; Rust, 1537; Santschi, 1554; Smith, 1649; Smith & Vosler California Mon. Bull. St. Comm. Hort. 3 pp. 195–211; Smulyan, 1651; Viereck, 1845; Wheeler, 1921; Woods, 1949.

Lepidoptera.

Barnes & McDunnough, 101; Berry, 139; Bird, 152; Braun, 199, 200, 202; Busck, 250; Dod, 443; Dyar, 465, 466 (Bermuda); Ely, 499; Gibson, 631; Grinnell, 696, 697; Haimbach, 710; Haskin, 739; Heinrich, 756; Lindsey, 1050; Pellett, Iowa, Pr. Iowa Ac. 21 p. 347 pl. xxxvi; Perrin, 1326, 1327; Rowley & Berry, Missouri, p. 303 Canad. Ent. 47; Swett, 1706; Watson, 1894; Welch, 1911; Wild, 1934.

Trichoptera.

Lloyd, 1056; Muttkowski, 1226.

Neuroptera.

Englehardt, 508; Hilton, 782; Navás, 1239, 1240.

Diptera.

Aldrich, 10, 12, 13, 14; Alexander, 16, 20, 23; Banks, 92, 96, 97; Bishopp, 155; Britton, 217; †Cockerell, 332; Cockerell, 336; Cresson, 374, 375, 376; Dietz, 431; Dyar & Knab,

Bahamas, 467; Felt, 537 to 540, 543, 544; Greene, 690; Hunter, 814; Johnson, 861, 862, 863; Knab, 938, 941, 945; Malloch, 1110 to 1120, 1122; Muttkowski, 1227; Osburn, 1290; Shannon, 1609, 1613; Smith, 1643, 1645, 1647; Townsend, 1758, 1762, 1772, 1774; Van Duzee, 1819, 1820; Walton, 1873, 1874; Whitney, 1929.

Aphaniptera.

Jordan & Rothschild, 883; Rothschild, 1511 to 1514.

Hemiptera.

Abbott, 1; Ainslie, 8; Ball, 83; Bergroth, 132; Cockerell & Robinson, 344; Crumb, 383; Cushman, 391; Davidson, 395; Davis, 403, 404, 410; Essig, 518; Funkhouser, 612; Gibson & Cogan, 633; La Follette, 996; Metcalf, 1158; Olsen, 1283; Osborn, 1287; Osborn & Drake, 1288; Parshley, 1306, 1310; Torre Bueno, 1756; Van Duzee, 1818, 1821, 1822; Wilson, 1946; Woodruff, 1948.

Thysanoptera.

Hood, 792, 796, 797; Hood & Williams, 798; Watson, 1898.

Lipoptera.

Kellogg & Nakayama, 907.

Psocoptera.

Corbett & Hargreaves, 351.

Ephemeroptera.

Clemens, 316.

Paraneuroptera.

Quebec dragon-flies, Fyles pp. 66 & 67 Ottawa Nat. 29; Kennedy, 912; Osburn, 1291; Pierson, 1382.

Orthoptera.

Caudell, 274, 275, 276 also Alaska p. 160 Canad. Ent. 47; Davis, 400, 401, 406; Fox, 577; Fulton, 608; Hebard, 742, 743; Rehn & Hebard, 1451, 1452, 1453; Prince Edward and Magdalen islds., Walker pp. 339–344 Canad. Ent. 47; Canada *Mantis religiosa*, Canad. Ent. 47 p. 135.

Central America.

Insecta, collectively.

Godman, 665.

Coleoptera.

Arrow, 56; Casey, 271, 272; Champion, 279; Hopkins, 800; Lameere, 1006; Pic, 1344, 1361; Pouillaude, 1408; Prell, 1419.

Hymenoptera.

Franklin, 581; Gahan, 613; Morey, 1208.

Lepidoptera.

Dixey, 437; Dyar, 465; Meyrick, 1172; Schaus, 1575; Walsingham, 1871.

Neuroptera.

Esben-Petersen, 514; Navás, 1241 Petersen, 1330; Stitz, 1680.

Diptera.

Alexander, 18, 19; Cockerell, 334; Edwards, 472; Felt, 539; Jennings, 849; Knab, 938, 939; Townsend, 1758, 1759, 1766, 1768, 1771.

Hemiptera.

Cockerell & Robinson, 344; Osborn & Drake, 1289.

Thysanoptera.

Hood, 792, 793.

Paraneuroptera.

Calvert, 256.

Orthoptera.

Hancock, 716; Rehn & Hebard, 1451, 1453.

Antilles.

Insecta, collectively.

Ballou, 85; Mann, 1127.

Coleoptera.

Arrow, 56; Hopkins, 800; Pic, 1344.

Hymenoptera.

Cockerell, 325; Crawford, 364; Gahan, 613; Girault, 642; Rohwer, 1498.

Lepidoptera.

Dyar, 464; Meyrick, 1172; Ramsden, 1445.

Diptera.

Alexander, 22; Brues, 228; Felt, 538, 539; Jennings, 849; Knab, 940; Mallock, 1115; Townsend, 1758, 1771.

Orthoptera.

Bruner, 229; Rehn & Hebard, 1451.

South America, including Trinidad.

Insecta, collectively.

Lizer, 1053; Lüderwaldt, 1082.

Coleoptera.

Achard, 2; Arrow, 56; Bowditch, 196, 197; Brèthes, 209, 209b; Bryant, 236; Casey, 271; Hopkins, 800; Kerremans, 914; Lameere, 1006; Pic, 1344, 1346, 1349, 1356, 1357, 1360, 1361, 1365, 1366; Pierce, 1378; Pouillaude, 1408; Prell, 1419.

Hymenoptera.

Brèthes, 205, 208, 208c, 209a, 209e, 209f, 209h; Bruch, 224; Brues, 227; Cockerell, Patagonia, **323; Forel, 573; Girault, 640, 642, 647, 652, 661; Morley, 1208; Rust, 1537; Santschi, 1554; Turner, 1797; Wheeler, 1920.**

Lepidoptera.

Dixey, 437; Joicey & Rosenberg, 870; Jones, 872; Jordan, 878; Meyrick, 1171, 1172; Schaus, 1575; Sharpe, 1619; Thierry-Mieg, 1727, 1728; Walsingham, 1871.

Neuroptera.

Navás, 1245; Stitz, 1680.

Diptera.

Aldrich, 13; Brèthes, 206, 207, 209g; Felt, 538, 539, 542; Knab, 942, 943, 944; Lutz, 1086; Lutz, Neiva & Lima, 1087; Moreira, 1194; Townsend, 1758, 1761, 1765, 1767, 1769, 1770, 1771.

Hemiptera.

Bergroth, 130; Funkhouser, 609; Jacobi, 835; Quaintance & Baker, 1429; Torre-Bueno, 1752 also pp. 157–162 An. Mus. Buenos Aires **26.**

Thysanoptera.

Bagnall, 67; Brèthes, 208a; Hood, 792, 795.

Lipoptera.

Waterston, 1892.

Paraneuroptera.

Williamson, 1944.

Orthoptera.

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†*Necrobia sibylla* **sp. n.** p. 261 pl. v. f. 5 Colorado Miocene, WICKHAM Trans. Amer. Ent. Soc. **40**.

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In "Thousand insects of Japan," Suppl. 1, 1909 and ii 1910, MATSUMURA describes and figures new species using only the Japanese language. As I do not know whether the names will have validity I give them here in a separate list, kindly prepared by Mr. A. E. Wileman. In suppl. iii Matsumura gives other descriptions using the English, as well as the Japanese language; these species will I presume be accepted (although they have been ignored by the Japanese bureau of the International Catalogue) and I have accordingly placed them in their appropriate positions.

List of spp. n. in Suppl. i.—*Acherontia sojejimae* No. 44 p. 27 pl. iv f. 4, Japan; *Hippotion obanawae* No. 55 p. 34 pl. v f. 2, Formosa; *Rhagastis binoculata* No. 63 p. 39 pl. v f. 10, Formosa; *Pheosia octofasciata* No. 90 p. 54 pl. ix f. 9, Japan; *Eupterote formosana* No. 91 p. 55 pl. ix f. 10, Formosa; *Notodonta ishidae* No. 93 p. 56 pl. x f. 1, Japan, *N. nitobei* No. 97 p. 59 pl. x f. 5, Japan; *Zangra ziozankeana* No. 110 p. 65 pl. x f. 19, Japan; *Drymonia discoidalis* No. 123 p. 72 pl. xi f. 6, Japan; *Cymatophora medialis* No. 128 pl. xi f. 11, *latipennis* No. 129 f. 12 p. 76, *fujisana* No. 136 p. 81 pl. xi f. 19, Japan; *Habrosyne roseola* No. 133 p. 79 pl. xi f. 16, Japan; *Spatalia okamotonis* No. 139 p. 82 pl. xi f. 22, Japan; *Crinocraspedia guttata* No. 144 p. 85 pl. xii f. 1 Formosa; *Oreta theae* No. 236 p. 134 pl. xiii f. 10, Formosa; *Drepana griseola* No. 238 p. 135 pl.

xiii f. 12, Japan. In suppl. ii 1910: *Ourapteryx horishana* No. 386 p. 75 pl. xxiii f. 11, *formosana* No. 388 p. 76 f. 13, *virescens* No. 391 p. 77 f. 16, Formosa, *laeta* No. 390 p. 77 f. 15, *jesoensis* No. 389 p. 76 f. 14, Japan; *Gonodontis nitobei* No. 397 p. 81 pl. xxiv f. 7, Japan, *Gnophos formosana* No. 423 p. 96 pl. xxv f. 9; *Acanthocampa okamotonis* No. 435 p. 103 pl. xxv f. 21, Japan; *Epamraica bilineata* No. 482 p. 130 pl. xxviii f. 1, Japan and Formosa; *Amphidasis jesoensis* No. 483 p. 130 pl. xxviii f. 2 Japan.

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Butterflies of King River canyon, Sierra Nevada mountains, GRINNELL Bull. Brooklyn Ent. Soc. **10** p. 100–102,

Notes entomologiques, HOLL Alger Bul. soc. **5** 1914 p. 36–41 av. fig.

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Notes on rearing, habits etc., FLOERSHEIM Entomol. 48 pp. 225–229 etc.

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Vanessa antiopa, n.f., Pfaff Ent. Zeitschr. **27** p. 229, 1914.—*V. antiopa,* ab., Keil Ent. News **26** p. 395 pl. xvii f. 2.—*V. canace,* larva and pupa, Wileman Philipp. J. Sci. D **10** p 285 figs.

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†*Atarba vectensis* **sp. n.** England p. 492 fig., COCKERELL P. U. S. Mus. **49.**

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†*Tipula limiformis* **sp. n.** England p. 492 fig., COCKERELL P.U. S. Mus. **49.**—†*T. bouati cossmanni*, **spp. n.** France tertiary, MEUNIER Amsterdam Verh. K. Akad. Wet. 2. Sect. **18** 5 p. 14.

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INCLUDING

ENTEROPNEUSTA AND PTEROBRANCHIA

ARRANGED BY

C. TATE REGAN

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XIV. VERTEBRÁTA

(GENERAL)

i.e., complementary to Mammalia, Aves, Reptilia, and Pisces

ARRANGED BY

D. SHARP

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Henicichthys **gen. n.** *foraminosus* **sp. n.** Japan, TANAKA Dobuts. Z. Tokyo **27** pp. 565–568.

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†*Ptyctodus sibiricus* **sp. n.** Upper Devonian, Altai, TOLMATCHOFF Trav. Geol. Cab. Maj. Petrograd **8** pp. 193 216 pl. i figs. 1–3.

XVI. REPTILIA AND BATRACHIA

ARRANGED BY

C. TATE REGAN.

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GOUV. TOMSK: **Chachlov, 137; Poljakov, 660; Sushkin, 815; Tugarinov, 866; Zalesski, 927.**

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PORTUGUESE GUINEA: **Grant, 291; Reichenow, 682.**

SIERRA LEONE and GOLD COAST: **Grant, 291.**

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BRITISH EAST AFRICA: **Grant, 289, 291; Lönnberg, 483; Mearns, 538, 538a.**

UGANDA: **Grant, 289; Mearns, 538; Neumann, 586; Salvadori, 727a; Someren, 800, 801, 802.**

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ASSAM: **Hartert, 330; Neumann, 589; Stevens, 807.**

BURMA: **Salvadori, 725.**

CEYLON: **Hartert, 333; Lewis, 471.**

ANDAMAN IS.: **Neumann, 589; Oberholser, 598.**

Malayia.

MALAY PENINSULA: **Hartert, 330; Oberholser, 597; Robinson, 703, 704, 705; Robinson & Kloss, 706, 707.**

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New Guinea and dependent Islands.

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NEW GUINEA: **Mathews, 518; Neumann, 589; O.-Grant, 605; van Oort, 614; Reichenow, 678; Rothschild & Hartert, 717.**

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COLOMBIA: **Bangs, 53; Chapman, 141, 142, 143; Cory, 180; Hellmayr, 361; Ridgway, 692; Todd, 856, 857.**

Central America.

GENERAL: **Pycraft, 672.**

PANAMA: **Chapman, 141, 143; Ridgway, 693.**

COSTA RICA and NICARAGUA: **Ridgway, 692.**

West Indies.

TRINIDAD: **Chapman, 143.**

TOBAGO: **Cory, 179; Hellmayr & Seilern, 364.**

ST. LUCIA: **Hellmayr & Seilern, 364.**

BARBUDA, CULEBRA and PORTO RICO: **Ridgway, 692.**

ST. CROIX: **Noble, 593.**

JAMAICA: **Ridgway, 692, 694.**

CUBA: **Todd, 857.**

BERMUDA: **Bangs, 51a.**

NEARCTIC REGION
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General.

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Mexico.

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Western United States.

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UTAH: **Wetmore, 888.**

NEW MEXICO: **Merrill, 547.**

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OREGON: **Shelton, 772.**

WASHINGTON: **Bowles, 98; Dice, 212; Rathburn, 674.**

IDAHO: **Rust, 722.**

WYOMING: **Henninger, 371.**

MONTANA: **Saunders, 736, 737, 738, 739.**

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TEXAS: **Simmons, 792, 793; Thayer, 838.**

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MARYLAND: **Eifrig, 227.**

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MARTIN A. C. HINTON

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†*Nothodectes* **gen. n.** *dubius* **sp. n.** Eocene Wyoming, MATTHEW Bull. Amer. Mus. N. H. **34** p. 482.

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†Pleistocene France, MAYET et PISSOT Ann. Univ. Lyon **1** Sci. Med. fasc. 39 p. 67; Russian species, SATUNIN **388**; of R. Kolyma, ŽITKOV Journ. sect. zool. Moskva **1** p. 267; Kaukasus, DINNIK Zap. Kavk. otd. geogr. Obšč. **27** No. 2 p. 245; Indian and Burmese species, synonymies and habits, WROUGHTON **500–503**; Malagasy species, KAUDERN Ark. Zool. **9** No. 18 p. **79**; Lower incisors and canines, NEUVILLE Bul. Mus. Hist. Nat. Paris **1915** p. 6; Spleen, RETTERER et NEUVILLE C. R. Soc. Biol. **78** p. 557. Corpora cavernosa, adipose tissue, RETTER and NEUVILLE **356** and **357**.

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†*Hyæna eximia* tertiaire de Grebeniki et de Tchobroutchi, PAVLOW Ann. géol. minér. **16** p. 184; *ultima* **sp. n.** premolar, Pleistocene Sze-Chuan, MATSUMOTO Sci. Rep. Imp. Univ. Sendai **3** p. 2.

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†*Simocyon primigenius* tertiaire de Tchobroutchi, Pavlow Ann. géol. minér. **16** p. 185.

Vulpes vulpes der Krim, Beschriebung, Altersveränderungen, Lebensgewohnkeiten, *krymea-montana* **subsp. n.** Berge der Krim, Brauner Odessa Mém. Soc. nat. **40** p. 131; *lagopus* R. Kolyma, coloration, dentition, dimensions, Žitkov Journ. sect. zool. Moskva **1** p. 277.

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†*Mustela palæattica* tertiaire de Grebeniki, Pavlow Ann. géol. minér. **16** p. 185.

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†*Trochictis toxodon* dentition Miocene, Palencia, Hermandez-Pacheco and Dantin Com. Invest. Paleon. Madrid **5** p. 68.

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†*Chriacus gallinæ* **sp. n.** Eocene (Wasatch) New Mexico, MATTHEW T.c. p. 6.

†*Didymictis protenus lysitensis* subsp. n. Eocene Wyoming, MATTHEW T.c. p. 21.

†*Dissacus navajovius longævus* p. 86, *prænuntius* p. 87, subsp. et **sp. n.** Eocene Wyoming, MATTHEW T.c.

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†*Miacis exiguus* p. 33. *latidens* p. 34 **spp. n.** Eocene Wyoming, MATTHEW T.c.

†*Oxyæna æquidens*, *transiens* p. 47, *gulo* p. 53, *pardalis* p. 55 **spp. n.** Eocene Wyoming, MATTHEW T.c.

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†*Sinopa mordax*, *shoshoniensis* p. 73, *vulpecula* p. 80 **spp. n.**, Eocene Wyoming, MATTHEW T.c.

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* The total number of names in this index is 1,735; distributed as follows, viz.:—*Protozoa* 39; *Porifera* 23; *Coelenterata* 28; *Echinodermata* 34; *Vermidea* 72; *Brachiopoda* 8; *Bryozoa* 7; *Mollusca* 70; *Crustacea* 56; *Arachnida* 116; *Myriopoda* 14; *Insecta* 1,109; *Prochordata* 5; *Pisces* 40; *Reptilia* 36; *Aves* 56; *Mammalia* 44. The total last year was 1,945.

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